

Shasta College
Academic Senate—SLO Committee
www3.shastacollege.edu/SLO

SLO Handbook for Instructors

(Updated Spring 2010)

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SLO Handbook for Instructors

About Student Learning Outcomes

The Student Learning Outcomes process asks instructors to look carefully at student mastery of knowledge and skills, then to use this information about student learning to guide our own decisions about instruction and other means of supporting student success across campus. The starting point for the SLO process is to ask, “In terms of the big picture, what are the main goals or outcomes of the course or program?” Sustaining the process is collaboration among faculty as we work together to find and create ways to improve and sustain student learning and success.

Just as the SLO cycle asks us to focus on improvements and changes in teaching and learning, the process itself will be subject to improvements and change. From the campus-wide level to individual courses and programs, our first attempts at the SLO process will yield some bumps or even hit dead ends. But we'll learn from those experiences and will complete the cycle more effectively with the second (or third, or fourth!) attempt. Starting over in the SLO cycle is not a failure. It is more valuable to learn something about high quality outcomes assessment than to quickly get “done” with the cycle in a mediocre way. In fact, there is no fixed end point with outcomes assessment as a whole. Instead, it is an on-going process that cycles along—we repeat the assessment process several times for the same outcome until it is well established and then move on to explore a new outcome in the same course or program. The SLO process is continuous because it involves gathering information about student learning, which itself is an ongoing and ever-changing process.

Faculty will apply the SLO Cycle to 4 levels of instruction

1) Courses

2) Degrees & certificates

3) General Education areas

- a. Natural Science
- b. Social & Behavioral Sciences
- c. Humanities
- d. English Composition
- e. Oral Communication
- f. Analytical Thinking
- g. Multicultural
- h. Living Skills

4) Instructional support

- a. Learning Resources Center (LRC) orientations and workshops presented by faculty and required or specifically recommended for students enrolled in a particular course
- b. The 300-level courses that focus on tutoring or learning lab experiences.

The SLO cycle (or similar assessment cycles) may apply to additional activities or services at Shasta College, but are beyond the scope of instructor responsibility and are not included in this handbook.

I. COURSES: The SLO Process for Courses Includes 5 Steps

1. Identify Course Student Learning Outcomes (SLOs)
 2. Develop methods for assessing the outcomes
 3. Use these methods to gather information, data
 4. Compile and interpret the resulting information
 5. Discuss and plan for improvements
- Plus: *Closing the Loop*


Steps 1-2: Full-time faculty members identify outcomes and assessments. Input from part time faculty is encouraged.

Step 3: All faculty members, both full- and part-time, gather and submit SLO assessment data for the sections they teach.

Steps 4-5: Full time faculty members are responsible to oversee and lead completion of the entire SLO cycle. Input from part time faculty is encouraged.

Step 1 for Courses: Identify Student Learning Outcomes

*All courses have documented course level SLOs. The SLOs can be found on DocuShare at <http://www.shastacollege.edu/SLO/>

	Nuts & Bolts:
For information about forms, deadlines, and who's responsible for what see Appendix A, "Documenting Steps 1 & 2 for Courses"	

Process for developing SLOs for new courses or revising current SLOs:

Student learning outcomes are specific measurable goals and results that are expected as the result of a course. These outcomes may involve knowledge, skills, or attitudes that display evidence that learning has occurred, at a specified level of competency, as a result of a course. Learning outcomes are statements that define what a student is able to *DO* at the completion of a course. Learning outcomes provide a focus and a standard for the course.

Student = focus on what the *student* can do, not what the course or instructor covers

Learning = focus on the skills, knowledge, attitudes that you expect the student to gain

Outcomes = focus on what you want the students to *come out* with when they leave the course, not merely what they will experience during the course

Outcomes may be developed based on the expertise of faculty, objectives in the Course Outline of Record, successful examples from other colleges, and/or guidelines of any outside governing bodies relative to the discipline.

Outcomes versus Objectives?

As a rule of thumb, outcomes are broad, objectives are specific. Usually a course will have more objectives than outcomes. Often the outcomes are comprised of what the student can do as the result of putting together several objectives. That is, a cluster of objectives might support a single course outcome. If you look at "objectives" listed on Curriculum Course Outlines of Record you'll see that many of those do list specific and numerous objectives, not outcomes. However, for some courses the stated "objectives" are actually outcomes. If that seems to be the case for your course, then you've got a set of outcomes ready to go!

DocuShare can be accessed on the SLO homepage at <http://www.shastacollege.edu/SLO/>

Practical Guidelines for Writing Student Learning Outcomes for Courses

1. Outcomes should represent a fundamental result of the course. For most courses, the purpose of the course can be summarized in 2-5 expected student learning outcomes. Ask yourself questions such as:

- Ultimately what do you hope students will walk away with when they leave this class?
- In terms of the big picture, what do you consider to be three or four main goals of this course?
- You cover a lot of content (or skills) in this course. As students acquire this knowledge, what would you hope or expect that students can do in terms of applying the knowledge (or skills)?
- What is it that you value about your discipline or profession that you think could be of benefit to the larger community? In what ways, small or large can students who complete your course make this contribution? What skills or qualities will they have to share that they have acquired from your course?

2. Outcomes should be significant and meaningful, requiring the student to demonstrate some combination of:

- Higher levels of thinking and learning
- Application of knowledge and skills
- Critical thinking
- Synthesis of several skills or pieces of information

3. Start each outcome with the phrase, “Upon successful completion of [course], a student should be able to...”

4. Include active verbs that emphasize what the student should be able to DO as a result of the course. Address student competency rather than content or coverage. Just a few examples are: explain, apply, create, solve, critique, analyze, compare, distinguish, categorize.

5. If you’ve written a very broad outcome, you might consider listing the objectives or smaller outcomes that build up to the larger broad outcome.

6. The course outcomes should be consistent with the course objectives and course content in the Curriculum Course Outline of Record. Outcomes and objectives are not necessarily the same thing, but there should be a logical connection. For example, the objectives might build up to provide the larger outcome.

7. Ultimately, you will need to develop a way to assess the outcome. So it helps if the written outcome suggests an assessment. However, it’s important to first establish the outcomes that are meaningful to the course, and *then* think about how they will be assessed. In other words, don’t throw out an important outcome because it looks like it will be difficult to assess; don’t write trivial outcomes because they appear easy to assess. There is a huge amount of flexibility in terms of how we do assessment—if it’s an important outcome, it *can* be assessed; it’ll just take us some creativity and trial and error to work out an effective and efficient means of assessment.

8. *If applicable*, the outcomes align with:

- a. other courses in a sequence
- b. program outcomes
- c. requirements of transfer institutions
- d. requirements of external bodies (such as accrediting, licensing boards, etc.)

Step 2 for Courses: Develop Methods for Assessing the Outcomes

Overview

There are many ways to assess outcomes. Examples include essays, surveys, case studies, portfolios, student projects, skills demonstrations, selected exam questions, and so on. For an overview of various categories of assessments, see Appendix C, "Types of Assessments." Some of your courses might already have an assessment in place that examines a course outcome.


In working through the SLO process, instructors should give priority to including or phasing in *authentic assessment* methods. For an overview of authentic assessment, see the section that follows.

Ideally all sections of a course will use the same assessment method, to allow for peer collaboration and meaningful discussion of teaching and learning. However, in some cases, it may be more feasible for faculty to meet and share results of assessments that vary from one section to another, but assess the same learning outcome.

The assessment tool may or may not be a graded activity in the course. When the outcomes assessment is based on existing course assignments/exams, instructors should be careful that evaluation of student work for the purpose of outcomes assessment focuses on precisely whether and how the student work satisfies the outcome, not what grade it earned toward class credit. Focus on explaining *how* you will be evaluating whether the student work is successful on the outcome or not. What criteria will you be using? A checklist or rubric can be useful here.

In developing an assessment method, faculty will need to figure out answers to questions such as the following:

- "When will students complete the assessment?"
- "Will all students or only a sample be assessed?"
- "What are all the details of the procedure?"
- "What materials or questions will be used?"
- "How will individual students be evaluated?"
- "What level of overall performance will be considered satisfactory?"
- "What sort of rubric or checklist might we use?"

	Nuts & Bolts:
For information about forms, deadlines, and who's responsible for what see Appendix A, "Documenting Steps 1 & 2 for Courses"	

Assessing ALL or SOME students?

In courses that enroll a large number of students, you may opt to select a representative sample of student work to assess. The sample should be large enough to provide a good variety of student work and should be selected randomly.

Since student learning outcomes are statements of what students should be able to do *upon successful completion of the course*, you may opt to assess only students who *are* successfully passing the course. On the other hand, evaluating all students can give you a wider picture of student success and failure.

The Importance of Authentic Assessment

(Excerpted from: Mueller, J., *The Authentic Assessment Toolbox*. Online at <http://jonathan.mueller.faculty.noctrl.edu/toolbox/index.htm>)

One theme of the SLO process is a focus on authentic assessment. What is authentic assessment and why is it important?

Overview

Authentic assessment is a form of assessment in which students are asked to demonstrate meaningful application of knowledge and skills to real-life situations, issues, or examples.

If you were a golf instructor using authentic assessment you would probably not evaluate your students' golf skills by giving them a multiple choice test. Instead, you would put them out on the golf course and ask them to perform, demonstrating their skills in a round of golf. Although the potential for skill application is more obvious with athletic or technical skills, it also works for academic subjects. We can teach students how to *do* math, *do* history and *do* science, not just *know* them. Then, to assess what our students have learned, we can ask students to perform tasks that "replicate the challenges" faced by those using mathematics, doing history or conducting scientific investigation.

Qualities of Authentic Assessment

- Students are required to *perform* a task (whether physical or cognitive) or to *create* a project or product.
- Students apply skills, knowledge, or objectives towards real-life scenarios, examples, situations, content, or issues.
- Students analyze, synthesize and apply what they have learned in a substantial manner. As a result students create or construct new meaning, insight, or understanding during the process.

Why use Authentic Assessment?

Authentic assessment is not intended to *replace* other valuable forms of assessment. However, there are good reasons to *add* it to your toolbox of teaching techniques:

Direct Evidence: We do not want students simply to know the content of a course. Instead, we want them to be able to *use* the acquired knowledge and skills in the real world. So, we need to include some assessments to tell us if students can apply what they have learned in authentic situations. If a student does well on a test of knowledge, we might infer that the student could also apply that knowledge. But that is rather indirect evidence. There are more direct ways to evaluate whether students can apply what they've learned. For example, if we want to know if our students can interpret literature, calculate potential savings on sale items, test a hypothesis, develop a fitness plan, converse in a foreign language, or apply other knowledge and skills, then authentic assessments will provide the most direct evidence.

Facilitating Learning: Students learn best when the learning experience is constructive in nature; that is, when they have the opportunity to learn by working through and making sense of the material, going beyond recall and recognition of isolated facts and repetition of isolated skills. Thus, authentic tasks serve not just as assessments but also as vehicles for learning.

Integrating Teaching, Learning & Assessment: With authentic assessment, the same authentic task used to assess student learning is also used as a vehicle for student learning. For example, when presented with a real-world problem to solve, students are learning in the process of developing a solution, teachers are facilitating the process, and the students' solutions to the problem become an assessment of how well the students can meaningfully apply the concepts.

Multiple Paths to Demonstration: Students have different strengths and weaknesses in how they learn. Similarly, they are different in how they can best demonstrate what they have learned. Regarding the traditional assessments, such as multiple-choice questions, there's not much room for variability in how students demonstrate their knowledge and skills.

In contrast, within authentic assessment there is more room for variability in how students demonstrate their mastery of the course content or objectives. By carefully identifying the criteria of good performance on the authentic task ahead of time, the instructor can make comparable judgments of student performance even though student performance might be expressed in various ways. For example, the products students create to demonstrate authentic learning on the same task might take different forms (e.g., papers, oral presentations, videos, websites). Or, even though students might be required to produce the same authentic product, there can be room within the product for different modes of expression. For example, writing a good persuasive essay requires a common set of skills from students, but there is still room for variation in how a successful essay is constructed.

How do you create authentic assessments?

For an excellent step-by-step process, visit Jon Mueller's online Authentic Assessment Toolbox. <http://jonathan.mueller.faculty.noctrl.edu/toolbox/index.htm>

Using Common/Shared Assessment Methods?

Ideally all sections of a course will use the same assessment method. However, when faculty have made a good faith effort to explore options for a common assessment method and it proves to be impractical, it is acceptable to have instructors use varying assessment methods. When making this decision, consider the advantages and disadvantages of sharing a common assessment method across sections of a course.

Advantages	Disadvantages
<ul style="list-style-type: none"> ● Combined data makes sense; combining data allows for anonymity. ● Focus remains on what students acquire from taking this course in general, rather than what do they acquire from a particular section and instructor. ● Easiest way to start a meaningful conversation about teaching, rather than getting bogged down by differences in the assessment methods. Even minor differences in assessment technique can muddy the waters, such as when the assessment occurs, how long the students have to complete the assessment, what materials they are allowed to use, whether the assessment is part of a graded assignment, etc. ● Avoids confusion when comparing "easy" and "difficult" assessments. ● Faculty can collaborate rather than each person starting from scratch. Sometimes it is most practical for a subset of faculty to lead the way, creating a common assessment tool for everyone to use. ● Shared assessment methods can be devised to be flexible, such as a portfolio that can be satisfied with various types of student work pulled from class assignments. ● When faculty sit down to create a common assessment (and accompanying rubric), this often results in valuable and stimulating discussion of how and what we teach. This conversation can be the most valuable advantage of developing a common assessment. 	<ul style="list-style-type: none"> ● May become difficult to take advantage of course-embedded assessments. ● There may be logistical and personality-based challenges that hinder the process of meeting and working together. ● Some faculty members are afraid that a shared assessment will reveal weaknesses, even though data will be reported anonymously in aggregate form. (To alleviate this concern, care should be taken among faculty so that the SLO process is about supporting each other with ideas for improved teaching and learning.) ● Some faculty members believe that using a shared assessment method violates academic freedom. Although this is a misconception, the resulting resistance can be a strong barrier. (Academic freedom is about how and what we teach--the subject matter and methods of teaching within the course. Content and methods of teaching are not restricted by adding a common behind-the-scenes assessment tool. Also, SLO data is to be reported anonymously, so as not to imply a punitive quality.)

Practical Guidelines for Developing Assessment Methods

1. Think in these terms: As the instructor, what information would you like to gather that will give you a better understanding of what or how the students are learning, understanding, or applying the course content?
2. You're likely to find that something that you already have the students doing in class will fit into the assessment process. With just a little bit of tweaking, an existing assignment or exam can cover outcomes assessment. For example:
 - a) Identify exam or quiz questions that measure the outcome. Tally up student performance on these specific questions.
 - b) You can't just put a grade on an exam or assignment and call that an SLO assessment! However, you can use graded student work as evidence of success on an outcome if you evaluate the work in terms of specific criteria necessary to satisfy the SLO. Rubrics or checklists are useful here.
 - c) Have students create portfolios or other ways of compiling small pieces of work that together demonstrate achievement of the SLO.
3. You might need to create a new assessment method from scratch. If so, you have the option to include it as a part of the course grade or not.
4. Feeling stuck? Call your SLO Coordinator and arrange for a brainstorming meeting.
5. Some course outcomes may be assessed with a **survey**, particularly outcomes that relate to developing student attitudes, beliefs, opinions, appreciation, or perspectives. For courses with large enrollment numbers, it can be worthwhile to take the time to work with the Research Office to create a survey that can be machine-scanned. Contact your SLO Coordinator if you'd like to look into this option.

Step 3 for Courses: Use these Methods to Gather Information about Student Learning

Here is where you put to use the assessment method that you developed in Step 2. Typically instructors will assess student performance during the semester when they are teaching the course. (There are some exceptions, as when a follow-up measure is used.)

Before gathering assessment data, you'll need to plan ahead. Work out details in advance so that your assessment will be a deliberate process of gaining meaningful results. Some questions to address before assessment include:

- When in the semester will the assessment occur?
- Who will administer the assessment?
- Who exactly will complete the assessment? The obvious answer is usually "the students in the class", but what does this mean? All students who happen to be present on the day of the assessment, who turn in the relevant assignment? Or will instructors follow-up to get all students to complete the assessment? Will it include all students in the class, or only those who are passing? Will only a sample of students be measured? If so, how is the sample to be selected?
- What materials and resources will the students have while completing the assessment?
- How much time will the students have to complete the assessment?
- Is the assessment to stand alone, or be embedded into a graded assignment or exam?
- What instructions or information will the students get about this assessment?
- During the assessment what type of questions may the instructor answer? Not answer?
- Should the assessment be a non-graded activity or something that does count toward the final grade?
- Should student participation in the assessment be optional or required?
- If there are ONLINE or ITV sections of the course, what logistics need to be worked out for those sections?
- What are other special considerations for this particular assessment?



Nuts & Bolts:

For information about forms, deadlines, and who's responsible for what see Appendix B, "Documenting a Complete Course SLO Cycle"

Step 4 for Courses: Review SLO results and Submit SLO results

Review SLO results:

After administering the SLOs take time to review the results and reflect on your findings.

Questions to consider when reviewing the results:

- Was overall student performance acceptable or below the target level?
- How much variation was there between the lowest and highest student performance?
- If the assessment yields several pieces of data (e.g., results for a list of survey questions, scores on various elements of a rubric) look at which areas were stronger or weaker. What sort of patterns emerge?
- How does this data compare to previous semesters? (when applicable)
- How do pieces of the picture correlate with one another? (A couple of examples: Do students with a passing/failing course grade follow the same pattern of passing/failing the assessment? Do students who do poorly on one part of the assessment tend to do poorly on another certain part? What other factors predict success on the outcome?)
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

Thoughts to keep in mind:

Remember that as faculty our goal in the SLO process is to acquire useful information, not getting "good" results. When the results help you to identify a potential weakness in student achievement, that is not a bad thing. In contrast, that is the whole point of this process--to identify areas for improvement and to address those in a positive, constructive, and supportive fashion.

Submitting SLO Assessment Results:

SLOs should be submitted **no later than one week after grades are due**. Use the *Course SLO Assessment Reporting Form* at <http://www.shastacollege.edu/SLOforms/> The form can be used to report results for a single course section or for multiple course sections. If you have any questions about which survey form to use, please contact your area faculty coordinator or SLO Coordinator.

If needed, SLO description and definitions can be found on DocuShare. If you want to cut-and-paste from these open a **SECOND** browser window then enter the following url in the address space:

<http://docushare.shastacollege.edu/dscgi/ds.pv/View/Collection-244> You will be able to move back and forth between these two browser windows to complete the survey.

Step 5 for Courses: Interpret, Discuss & Plan for Improvements

Fall Flex Day

Interpret and Discuss the Results:

One week before the Fall Flex Day, the Research and Planning Office will distribute SLO submission results and findings by department to the appropriate faculty Area Coordinator. The Area Coordinator will make the reports available to faculty on Flex Day for review.

Faculty teaching courses with multiple sections should collectively review their results. Faculty teaching single section courses should also participate in these discussions and may gain insight into how to better interpret their own findings. Faculty teaching single sections may opt to share their findings with the department for review. This is not a time for faculty to retreat to their offices for alone time.

Questions to consider when reviewing the results:

- Was overall student performance acceptable or below the target level?
- How much variation was there between the lowest and highest student performance?
- If the assessment yields several pieces of data (e.g., results for a list of survey questions, scores on various elements of a rubric) look at which areas were stronger or weaker. What sort of patterns emerge?
- How does this data compare to previous semesters? (when applicable)
- How do pieces of the picture correlate with one another? (A couple of examples: Do students with a passing/failing course grade follow the same pattern of passing/failing the assessment? Do students who do poorly on one part of the assessment tend to do poorly on another certain part? What other factors predict success on the outcome?)
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

After reviewing the results of the assessment and identifying areas of strength and weakness in student learning, faculty will identify potential ways to support and improve student performance. This may include various ways of improving instruction: pedagogy, content, curriculum, materials, equipment, hiring priorities, etc. Or a plan for improvement may look to other areas of student support, such as accurate advising and placement levels, study skills, time management, tutoring, labs, workshops, etc.

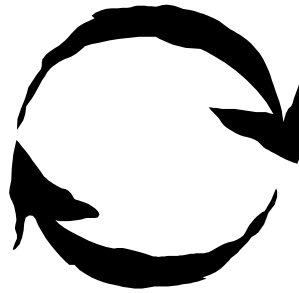
Submit Collective SLO Results:


After Flex Day discussions delegate one faculty member to report the assessment findings and plans for improvement on the *Summary SLO Assessment Form* at <http://www.shastacollege.edu/SLOforms/>. If you are the

only instructor teaching a particular course, you still must submit this summary report. If you have any questions about which survey form to use, please contact your area faculty coordinator or SLO Coordinator. This form is due **no later than the third Monday in September.**

Closing the Loop

After planning for improvements, faculty will implement those changes and then assess the same outcome in future semesters. Once a particular course outcome seems to be occurring at a consistently satisfactory level, you might opt to move on and start looking at a different outcome.



 Nuts & Bolts:
For information about forms, deadlines, and who's responsible for what see Appendix B, "Documenting a Complete Course SLO Cycle"

II. Degrees & Certificates: The SLO Process Includes 5 + 1 Steps

1. Identify Student Learning Outcomes (SLOs)
 - 1b. Map degree/certificate outcomes to required courses
 2. Develop methods for assessing the outcomes
 3. Use these methods to gather information, data
 4. Compile and interpret the resulting information
 5. Discuss and plan for improvements
- Plus: *Closing the Loop*

Faculty will take degrees and certificates through an assessment cycle similar to that used for courses. As such, many of the guidelines and tips described in the previous section about courses will be useful when you are taking a degree or certificate through the SLO cycle. The following section has some information specific to guiding degrees and certificates through the SLO cycle.

Note: Within this handbook, the term *program* refers specifically to a course of study resulting in a degree or certificate.

Step 1 for Programs: Identify Student Learning Outcomes

The process of identifying degree or certificate (program) outcomes is similar to identifying course outcomes. Please refer back to *Step 1 for Courses* in this handbook for definitions, guidelines, and practical tips for writing outcomes.

To recap the definition of outcomes as it applies to programs:

Program outcomes are the specific measurable goals and results that are expected as the result of a degree or certificate. These outcomes may involve knowledge, skills, or attitudes that display evidence that learning has occurred, at a specified level of competency, as a result of a program. Learning outcomes are statements that define what a student is able to *DO* at the completion of the program. Learning outcomes provide a focus and a standard for the program.



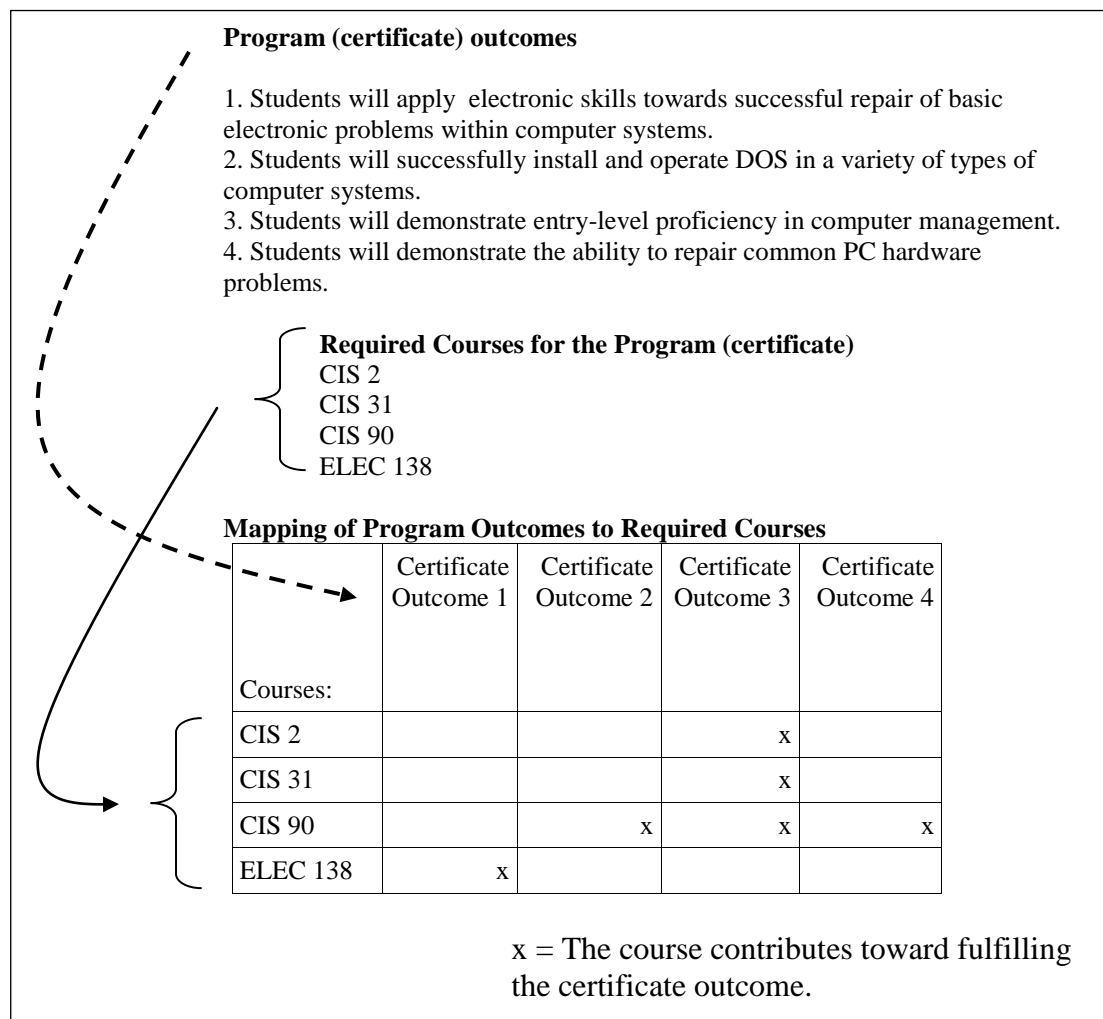
Nuts & Bolts:

For information about forms, deadlines, and who's responsible for what see Appendix A, "Documenting Steps 1 & 2 for Programs"

Step 1b for Programs: Map Program Outcomes to Required Courses

Once you've established a set of outcomes for a degree or certificate, the next step is to show how those program outcomes are supported by required courses (and other required activities when applicable). To do this, you'll map out connections between the program outcomes and courses in a simple matrix.

Here is a fictional example. In mapping your own program's outcomes, use this table as a template, but set it up with the right number of rows/columns to fit the number of outcomes and courses that you are working with.



Step 2 for Programs: Develop Methods for Assessing the Outcomes


There are many different types of assessments for student achievement at the program level. A few examples include:

- licensing exam
- job placement, job success
- portfolio
- performance
- exit exam
- exit interview
- special projects
- survey of graduates

Step 3 for Programs: Methods to Gather Information about Student Learning

Here is where you actually use the assessment method from Step 2 to gather information about student accomplishments. Unlike course assessments, it's not always obvious how or when to assess program outcomes. Some possibilities include the following models:

- Add the assessment as an activity to be completed by students finishing the program
- Include an assessment within a "capstone" course. (A capstone course is one required at the end of the program sequence. It may be an existing course or one specially added to guide students in a final synthesis of their skills and knowledge.)
- Track student success on *course* outcomes that build up to degree outcome
- Look more broadly, such as employer satisfaction surveys, license exams, etc.

 To Nuts & Bolts:
For information about forms, deadlines, and who's responsible for what see Appendix A, "Documenting Steps 1 & 2 for Programs"

Step 4 for Courses: Review SLO results and Submit SLO results

Review SLO results:

After administering the SLOs take time to review the results and reflect on your findings.

Questions to consider when reviewing the results:

- Was overall student performance acceptable or below the target level?
- How much variation was there between the lowest and highest student performance?
- If the assessment yields several pieces of data (e.g., results for a list of survey questions, scores on various elements of a rubric) look at which areas were stronger or weaker. What sort of patterns emerge?
- How does this data compare to previous semesters? (when applicable)
- How do pieces of the picture correlate with one another? (A couple of examples: Do students with a passing/failing course grade follow the same pattern of passing/failing the assessment? Do students who do poorly on one part of the assessment tend to do poorly on another certain part? What other factors predict success on the outcome?)
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

Thoughts to keep in mind:

Remember that as faculty our goal in the SLO process is to acquire useful information, not getting "good" results. When the results help you to identify a potential weakness in student achievement, that is not a bad thing. In contrast, that is the whole point of this process--to identify areas for improvement and to address those in a positive, constructive, and supportive fashion.

Submitting SLO Assessment Results:

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Step 5 for Courses: Interpret, Discuss & Plan for Improvements

Fall Flex Day

Interpret and Discuss the Results:

One week before the Fall Flex Day, the Research and Planning Office will distribute SLO submission results and findings by department to the appropriate faculty Area Coordinator. The Area Coordinator will make the reports available to faculty on Flex Day for review.

Faculty teaching courses with multiple sections should collectively review their results. Faculty teaching single section courses should also participate in these discussions and may gain insight into how to better interpret their own findings. Faculty teaching single sections may opt to share their findings with the department for review. This is not a time for faculty to retreat to their offices for alone time.

Questions to consider when reviewing the results:

- Was overall student performance acceptable or below the target level?
- How much variation was there between the lowest and highest student performance?
- If the assessment yields several pieces of data (e.g., results for a list of survey questions, scores on various elements of a rubric) look at which areas were stronger or weaker. What sort of patterns emerge?
- How does this data compare to previous semesters? (when applicable)
- How do pieces of the picture correlate with one another? (A couple of examples: Do students with a passing/failing course grade follow the same pattern of passing/failing the assessment? Do students who do poorly on one part of the assessment tend to do poorly on another certain part? What other factors predict success on the outcome?)
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

After reviewing the results of the assessment and identifying areas of strength and weakness in student learning, faculty will identify potential ways to support and improve student performance. This may include various ways of improving instruction: pedagogy, content, curriculum, materials, equipment, hiring priorities, etc. Or a plan for improvement may look to other areas of student support, such as accurate advising and placement levels, study skills, time management, tutoring, labs, workshops, etc.

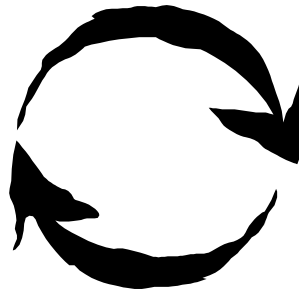
Submit Collective SLO Results:


After Flex Day discussions delegate one faculty member to report the assessment findings and plans for improvement on the *Summary SLO Assessment Form* at <http://www.shastacollege.edu/SLOforms/>. If you are the

only instructor teaching a particular course, you still must submit this summary report. If you have any questions about which survey form to use, please contact your area faculty coordinator or SLO Coordinator. This form is due **no later than the third Monday in September.**

Closing the Loop

After planning for improvements, faculty will implement those changes and then assess the same outcome in future semesters. Once a particular course outcome seems to be occurring at a consistently satisfactory level, you might opt to move on and start looking at a different outcome.



	Nuts & Bolts:
For information about forms, deadlines, and who's responsible for what see Appendix B, "Documenting a Complete Course SLO Cycle"	

III. Instructional Support: The SLO Process Includes 5 Steps

1. Identify Course Student Learning Outcomes (SLOs)
2. Develop methods for assessing the outcomes
3. Use these methods to gather information, data
4. Compile and interpret the resulting information
5. Discuss and plan for improvements

Plus: *Closing the Loop*

Across campus, a broad array of loosely related services may be categorized as "instructional support." However, within this handbook for instructors, the types of instructional support covered are limited to the specific areas listed below. The SLO cycle (or similar assessment cycles) may apply to additional instructional support services at Shasta College but are beyond the scope of instructor responsibility and are not included in this handbook.

- a. Learning Resources Center (LRC) orientations and workshops presented by faculty and required or specifically recommended for students enrolled in a particular course.

Faculty librarians and the LRC director will have responsibility for the SLO cycle in this area. Information about the SLO process within the LRC will be internally documented, with summary reports provided to the SLO coordinator as necessary for required campus-wide reports.

- b. Tutoring, learning labs, and workshops that are provided within the context of 300-level courses (such as BUAD 378: Business & Computer Tutoring Workshop, ENGL 382: Reading & Writing Workshop, NSCI 390: Natural Science Learning Lab, and others). These will follow the SLO cycle for courses.

IV. General Education: The SLO Process Includes 5 Steps

1. Identify Course Student Learning Outcomes (SLOs)
2. Develop methods for assessing the outcomes
3. Use these methods to gather information, data
4. Compile and interpret the resulting information
5. Discuss and plan for improvements

Plus: *Closing the Loop*

The Shasta College General Education pattern includes 8 required areas of study. Each of these areas will go through the SLO cycle.

- Natural Science
- Social & Behavioral Sciences
- Humanities
- English Composition
- Oral Communication
- Analytical Thinking
- Multicultural
- Living Skills

The General Education outcomes will go through a process of assessment similar to that for courses. This process will be overseen by the General Education Committee, in collaboration with the Senate SLO committee and coordinator, and with participation from General Education faculty.

Information about General Education and the SLO process can be found Shasta College SLO website (click on the General Education link):

<http://www3.shastacollege.edu/slo/>

APPENDICES

Appendix A: Documenting SLOs for New Courses

- 1. How do we document this part of the SLO process?** Fill out the *Basic Course SLO Form* and submit it as an email attachment (no hard copies) to the designated SLO Coordinator in pdf file format. This form is available on the SLO home page under Course Outcomes (via DocuShare) at <http://www.shastacollege.edu/SLO/> The completed forms are published by the Office of Academic Affairs (via [DocuShare](#)) alongside the Curriculum Course Outlines.
- 2. When is this due?** If a course, degree, certificate, GE or Program already has a form on file from a previous semester, you do *not* need to submit a new one, unless you wish to make changes. All scheduled courses should have the *Basic Course SLO* form on file by the end of the 2nd week of instruction.
- 3. Who is responsible for completing and submitting the form?** Similar to curriculum documents, making sure that that SLO Course forms are properly completed and submitted is the responsibility of full-time faculty in the discipline. To assist in identifying appropriate content for the *Basic Course SLO Form*, full-time instructors may solicit input from appropriate part-time instructors, particularly when no full-time faculty teach a given course. The Division office and Dean are responsible to provide administrative and organizational support for this process.
- 4. Who is responsible for getting the SLO information out to all instructors who teach the course?** The Division Dean is responsible for developing and implementing a process by which all instructors who teach a given course (both part-time and full-time) receive information about the SLO process and are provided with the link to the SLO home page. During this process, it should be made clear that the instructor is expected to actively follow-through with the SLO assessment process for the course. The SLOs for every course can be found on the SLO website via DocuShare at the following link <http://www3.shastacollege.edu/slo/>

Appendix B: Changing/Developing a New SLO or Assessment Method for an existing Course, Degree, Certificate, GE or Program

- 1. How do we document a new SLO for an existing course or a change to an existing SLO?** These changes will usually occur as the result of Fall Flex Day discussions and will be documented in question 14 which states: Describe your plans for improving or changing the assessment method or instruction for the upcoming year. After noting the changes on this form designate one faculty member to complete the *Basic Course SLO Form* or the *Program Basic SLO Form* and submit it as an email attachment (no hard copies) to the designated SLO Coordinator in pdf file format. The blank forms and the completed forms are published by the Office of Academic Affairs (via [DocuShare](#)) alongside the Curriculum Course Outlines and can be found on the SLO website at <http://www.shastacollege.edu/SLO/>
- 2. When is this due?** No later than the third Monday in September.
- 3. Who is responsible for completing and submitting the form?** Similar to curriculum documents, making sure that the SLO Course forms are properly completed and submitted is the responsibility of full-time faculty in the discipline. To assist in identifying appropriate content for the *Basic Course SLO Form*, full-time instructors may solicit input from appropriate part-time instructors, particularly when no full-time faculty teach a given course. The Division office and Dean are responsible to provide administrative and organizational support for this process.
- 4. Who is responsible for getting the SLO information out to all instructors who teach the course?** The Division Dean is responsible for developing and implementing a process by which all instructors who teach a given course (both part-time and full-time) receive information about the SLO process and are provided with the link to the SLO home page. During this process, it should be made clear that the instructor is expected to actively follow-through with the SLO assessment process for the course. The SLOs for every course can be found on the SLO website via DocuShare at the following link <http://www3.shastacollege.edu/slo/>

Appendix C: Documenting a Completed Cycle for a Course, Degree, Certificate, GE or Program

1. How do we report on the full SLO cycle for a Program? This is a three step process.

a) Step one (should be completed no later than one week after grades are due): Every faculty member is responsible for completing the *Course SLO Assessment Reporting Form* which includes multiple reporting options. When prompted choose the appropriate button (course, degree, certificate, GE or program) for the SLO for which you are reporting. In some cases one faculty member may be designated to submit the results for multiple courses. Course section numbers will be required which will serve to document which faculty have completed the SLO process. This form is available through the SLO website, click on the *Forms for reporting SLOs* link at <http://www3.shastacollege.edu/slo/>

b) Step two: On the Fall Flex Day all Area Coordinators will be provided with a report for their departments from the Research and Planning Office. This report will include the names of the faculty who have submitted their SLO findings and a list of the collective findings which will not be attributed to any particular faculty member. On Flex Day report to the location designated for your department and review the SLO reports using the following questions to guide your discussion:

- Was overall student performance acceptable or below the target level?
- How much variation was there between the lowest and highest student performance?
- If the assessment yields several pieces of data (e.g., results for a list of survey questions, scores on various elements of a rubric) look at which areas were stronger or weaker. What sort of patterns emerge?
- How does this data compare to previous semesters? (when applicable)
- How do pieces of the picture correlate with one another? (A couple of examples: Do students with a passing/failing course grade follow the same pattern of passing/failing the assessment? Do students who do poorly on one part of the assessment tend to do poorly on another certain part? What other factors predict success on the outcome?)
- In retrospect, does the SLO and/or the assessment method still make sense, or should they somehow be modified to get more useful information the next time around?

b) Step three: For multiple section courses one faculty member per course will be designated to complete the *Summary SLO Assessment Reporting Form* which will document the findings and observations made by faculty during the Fall Flex Day. Faculty teaching single section courses should discuss their findings with members of their department and will also need to complete the *Summary SLO Assessment Reporting Form*. This form is available through the SLO website, click on the Forms and Instructions link at <http://www3.shastacollege.edu/slo/>

2. When are the forms due?

The *Summary SLO Assessment Reporting Form* is due for each course taught **no later than the third Monday in September**. These forms should not be completed until faculty have collaborated with their peers to compile student data into one total and have discussed the combined results and plans for improvement.

3. Who is responsible for getting the SLO information out to all instructors in the program?
All faculty members who teach courses that are requirements for a given degree or certificate should regularly receive information about the outcomes for that program. The Division Dean is responsible for developing and implementing a process by which all instructors (both part-time and full-time) who teach a course relevant to a given degree or certificate receive a copy of an up-to-date Course SLO Program each year. During this process, it should be made clear whether and how the instructor is expected to assist in assessing any program outcomes within his or her course. The SLOs for every course can be found on the SLO website via DocuShare at the following link <http://www3.shastacollege.edu/slo/>

Appendix D: Types of Assessments

TYPES of ASSESSMENTS (Fulks, 2004)

Here's an overview of types of assessments. The list can help you get thinking about how to assess an outcome in your course or program.

Direct data Direct data measures the exact value. For instance, a math test directly measures a student's learning in math by defining a criteria and standard, then having the student analyze a problem.

Indirect data Data that measures a variable related to the intended value. For instance a person's math skills may be indirectly measured through an employers questionnaire asking about the computational skills of graduating students.

Qualitative data Data collected as descriptive information, such as a narrative or portfolio. These types of data, often collected in open-ended questions, feedback surveys, or summary reports, are more difficult to compare, reproduce, and generalize. It is bulky to store and to report; however, it is often the most valuable and insightful data generated, often providing potential solutions or modifications in the form of feedback.

Quantitative data Data collected as numerical or statistical values. These data use actual numbers (scores, rates, etc) to express quantities of a variable. Qualitative data, such as opinions, can be displayed as numerical data by using Likert scaled responses which assigns a numerical value to each response (e.g. 5 = strongly agree to 1 = strongly disagree). This data is easy to store and manage; it can be generalized and reproduced, but has limited value due to the rigidity of the responses and must be carefully constructed to be valid.

Formative assessment Formative evaluation involves assessment and analysis that generates useful feedback for development and improvement. The purpose is to provide an opportunity to perform and receive guidance (such as in class assignments, quizzes, discussion, lab activities, etc.) that will improve or shape performance on a final or summative evaluation.

Summative assessment Summative evaluation is a final determination of particular knowledge, skills, and abilities. This could be exemplified by exit or licensing exams, senior recitals, or any final assessment which is not created to provide feedback for improvement, but is used for final judgments.

Criterion-based assessments Assessment evaluated or scored using a set of criteria to appraise or evaluate work. Criterion-referenced evaluation is based on proficiency not subjective measures such as improvement.

Norm-referenced assessment Assessment of an individual is compared to that of another individual or to the same individual's improvement over time. Individuals are

commonly ranked to determine a median or average. This technique addresses overall mastery, but provides little detail about specific skills.

Embedded assessment Embedded assessment occurs within the regular class or curricular activity. Class assignments linked to student learning outcomes through primary trait analysis, serve as grading and assessment instruments. Individual questions on exams can be embedded in numerous classes to provide departmental, program, or institutional assessment information. An additional benefit to embedded assessment is immediate feedback on the pedagogy and student needs.

Standardized assessment Assessments created, tested, and usually sold by an educational testing company e.g. GRE's, SAT, ACT for broad public usage and data comparison, usually scored normatively. Standardized assessments are rarely appropriate for course SLO assessment, but an option to consider in special circumstances.

Homegrown or Local assessment This type of assessment is developed and validated for a specific purpose, course, or function and is usually criterion-referenced to promote validity.