Shasta College

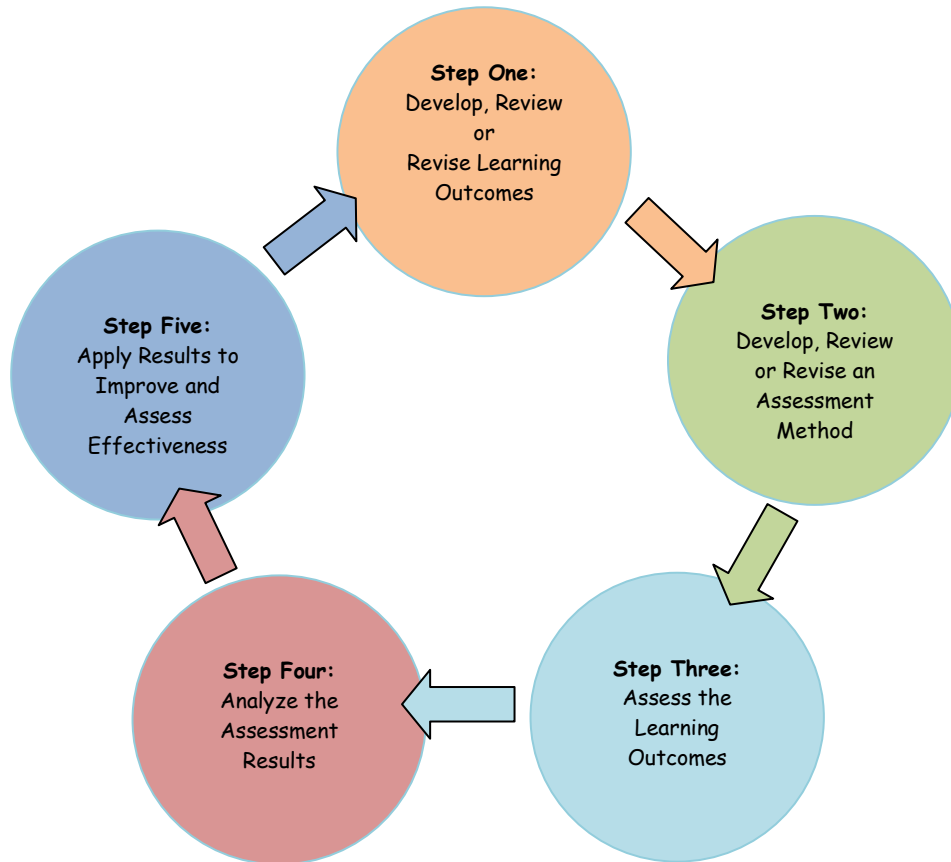# Learning Outcomes Handbook

Step One:
Develop, Review
or
Revise Learning
Outcomes

Step Two:
Develop, Review
or Revise an
Assessment
Method

Step Three:
Assess the
Learning
Outcomes

Step Four:
Analyze the
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Step Five:
Apply Results to
Improve and
Assess
Effectiveness

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Part I -
An Introduction to Assessment and Learning Outcomes at Shasta College

What is Assessment of Learning?

Learning assessment refers to a process where methods are used to generate and collect data for evaluation of courses and programs to improve educational quality and student learning. This refers to any method used to gather evidence and evaluate quality and may include both quantitative and qualitative data in instruction or student services.

Shasta College has adopted the following principles as guiding principles in the Learning Outcomes assessment process:

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9 Principles of Good Practice for Assessing Student Learning

1. The assessment of student learning begins with educational values.

2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.

3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.

4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.

5. Assessment works best when it is ongoing not episodic.

6. Assessment fosters wider improvement when representatives from across the educational community are involved.

7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.

8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.

9. Through assessment, educators meet responsibilities to students and to the public.

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What is a Learning Outcome?

A Learning Outcome is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of an academic activity. A Learning Outcome is expressed using active verbs and is stated in terms that make it measurable.

What types of Learning Outcomes are assessed at Shasta College?

Six types of Learning Outcomes are assessed at Shasta College. These include:

- Course-Level Student Learning Outcomes
- Library Student Learning Outcomes
- Student Services Student Learning Outcomes
- Program Learning Outcomes
- General Education Learning Outcomes
- Institutional Student Learning Outcomes

What is a Learning Outcomes Assessment Cycle?

At Shasta College, a Learning Outcomes Assessment Cycle consists of the following five steps:

Step 1. Develop, review, or revise the Learning Outcome
Step 2. Develop, review or revise an assessment method for the Learning Outcome
Step 3. Assess the Learning Outcome
Step 4. Analyze the assessment results
Step 5. Apply the results to improve outcomes and then assess the effectiveness of these improvements

Repeat, repeat, repeat …

This Learning Outcomes Assessment Cycle is applied to all types of Learning Outcomes assessed at Shasta College.

What are the benefits of assessing Learning Outcomes?

Systematic assessment of Learning Outcomes benefits the entire college community.

For students, statements of Learning Outcomes will:

- provide clear statements about the knowledge, skills, attitudes and abilities expected upon successful completion of the learning experience
- ensure a common core assessment across all sections of a course
- reassure students that faculty are having conversations about student success
- allow students to make informed decisions about degrees and certificates

For faculty, participating in Learning Outcomes assessment will:

- help determine what's working and what's not working in their courses or programs
- facilitate valuable campus-wide dialogue
- provide evidence to justify needed resources to maintain or improve courses and programs
- provide valuable feedback to inform and guide future teaching and learning to improve student learning

For Shasta College, Learning Outcomes assessment will:

- provide data about how well the mission is achieved
- demonstrate an institutional commitment to continually improving the academic programs and services offered
- provide valuable data for integrated planning and decision-making
- keep Shasta College in compliance with the Accrediting Commission for Community and Junior Colleges (ACCJC) requirements for learning outcomes. ACCJC requires that community colleges be at the Sustainable Continuous Quality Improvement Level of Implementation on the *ACCJC Rubric for Evaluating Institutional Effectiveness-Part III: Student Learning Outcomes* (see Appendix A for the ACCJC Rubric for Evaluating the SLO Process).

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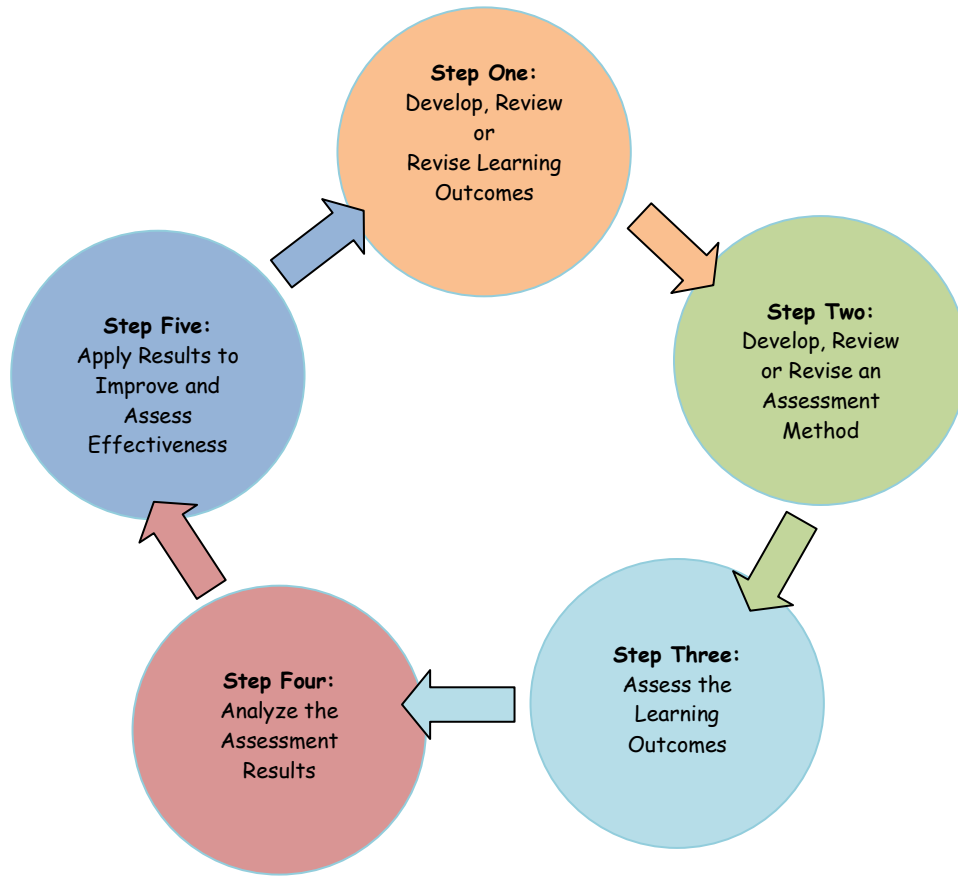
Chapter 1 -
The Course-Level Student Learning Outcomes Assessment Cycle

What is a Course-Level Student Learning Outcome?

A Course-Level Student Learning Outcome (SLO) is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of the course. An SLO starts with the phrase, "Upon successful completion of this course a student should be able to ..."

A Course-Level SLO statement meets the following four criteria. To evaluate the effectiveness of an SLO statement use the Rubric on Evaluating Learning Outcomes in Appendix B.

1. An SLO states the knowledge, skills, attitudes or abilities a student is expected to have upon successful completion of the course.
2. An SLO is expressed using active verbs.
3. An SLO is stated in terms that make it measurable.
4. An SLO supports one of the Institutional Student Learning Outcomes.

What is a Course-Level Student Learning Outcome Assessment?

A Course-Level SLO assessment identifies how students will be evaluated to determine whether or not successful completion of the learning outcome has been achieved.

A Course-Level SLO assessment meets the following four criteria. To evaluate the effectiveness of an SLO assessment use the Rubric for Evaluating Learning Outcomes Methods of Assessment in Appendix C.

1. Successful completion of the assessment is not based on the final course grade.
2. The assessment clearly identifies the criteria for student success.
3. The assessment clearly identifies how and when the assessment will be administered.
4. The assessment is authentic.

What is the difference between a Course-Level Student Learning Outcome and a measurable course objective?

As a rule of thumb, course student learning outcomes are broad whereas objectives are specific. As a result, a course will typically have more course objectives than SLOs. Often an SLO is comprised of what the student can do as the result of combining together several course objectives. That is, a cluster of objectives might support a single SLO. However, for some courses it may be appropriate for an SLO to be the same as one of the course objectives.

What is the point of assessing Course-Level Student Learning Outcomes when students are already assigned course grades?

Grades measure the overall performance by an individual student in a certain course. It is very difficult to trace back the learning of specific skills from a general grade. For example, if a student gets a "B" in the course, it is not possible (without checking the student records) to determine which topics within the course were grasped well by the student. Faculty members teaching various sections of a particular course could vary in their

combinations of these factors to produce grades. Grades provide a very succinct way to summarize how the student fared overall in a course but are not able to illustrate the students' level of understanding and acquisition of specific skills. Grades are student-specific. In contrast, SLOs are meant to be skill-specific. Instead of how many students received 'A's and 'B's in the course, how many of them were able to demonstrate a specific skill central to the course? SLOs focus on how students perform in particular skills that are taught in a course instead of the overall performance. Moreover, they are intended to determine what students would get out of a course regardless of which section they selected or which faculty member they had.

Should SLOs be included on the Syllabus?

Yes. Each SLO that is being assessed in a course must be included on the course syllabus.   It is not necessary for the SLO assessment method to be included on the syllabus.

Where are SLOs Documented?

Completed *Course-Level SLOs Forms* are on Docushare.
http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-244

The **Course-Level Student Learning Outcomes Assessment Cycle** has five steps:

1. Develop, review, or revise Course-Level Student Learning Outcomes (SLOs)
2. Develop, review, or revise an assessment method for each SLO
3. Assess the SLOs
4. Analyze the assessment results
5. Apply the results to improve outcomes and then assess the effectiveness of these improvements

Repeat, repeat, repeat…

Following is a description of each step of the Assessment Cycle

Step 1: Develop, Review, or Revise Course-Level Student Learning Outcomes

Who develops, reviews, or revises Course-Level Student Learning Outcomes?

Faculty have the sole responsibility to develop, review, or revise SLOs. Preferably all faculty who teach a course will participate in the development or revision of the SLOs for that course. At a minimum, all faculty who teach the course will be invited to participate.

How do you write a Course-Level Student Learning Outcome?

Write each SLO to meet the following four criteria.

Criteria 1: An SLO states the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of the course.

Start each SLO with the phrase "Upon successful completion of this course a student should be able to …"

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 the main goals of this course?
- What would you hope or expect that students can do in terms of applying the knowledge or skills that you have covered in the content of this course?

Additional issues to consider:

- If the course is required for a degree or certificate consider whether the SLO could also serve as a Program Learning Outcome (PLO). For more information about PLOs read the Chapter on PLOs.
- If the course is in one of the General Education Areas consider whether the SLO could also serve as a General Education Learning Outcome (GELO). For more information about GELOs read the Chapter on GELOs.
- The SLOs should be consistent with the course objectives and course content in the Course Outline of Record.

Criteria 2: An SLO is expressed using active verbs.

Examples of active verbs are classify, design, summarize, contrast or critique. Refer to Appendix D for a list of examples of active verbs from each of the six categories: knowledge, comprehension, application, analysis, synthesis, evaluation.

Criteria 3: An SLO is stated in terms that make it measurable.

Example 1

Here is an example of a Course-Level SLO that is not measurable:

Upon successful completion of this course the student should be able to write a paper.

Here is an example of a Course-Level SLO from Shasta College that is measurable:

ENGL 1A English Composition

Upon successful completion of this course the student should be able to write a clear, logically-organized research paper. The paper used will be expository in nature, use MLA-style documentation, and show competency in these five areas: quotation and summary integration; MLA manuscript format; MLA citation conventions; conventions of written English; and development of the thesis and argument.

Example 2

Here is an example of a Course-Level SLO that is not measurable:

Upon successful completion of this course the student should be able to participate in a debate.

Here is an example of a Course-Level SLO from Shasta College that is measurable:

CMST 40: Argumentation and Debate

> *Upon successful completion of this course the student should be able to identify and evaluate examples of evidence that can be used in a problem-solution policy debate.*

Criteria 4: An SLO should support one of the Institutional Student Learning Outcomes (ISLO). For more information about ISLOs see Chapter 6 on ISLOs.

When are Course-Level Student Learning Outcomes developed or revised?

New courses: Course-Level SLOs are developed at the time the course is developed. The completed *Course-Level SLOs Form* is submitted to the SLO Committee by the faculty developing the course when the Course Outline of Record is submitted to the Curriculum Council. The forms can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-533

Existing courses: new SLOs may be written or existing SLOs may be revised at any time based on the results of faculty dialogue about the SLO assessment results.

What is the Procedure for developing or revising Course-Level Student Learning Outcomes?

Procedure for developing SLOs for a new course: When the proposed *Course Outline of Record* is submitted to the Curriculum Council, a completed *Course-Level SLOs Form* for the course is submitted to the SLO Committee via the SLO Coordinator. (Note: The *Course-Level SLOs Form* should list all of the SLOs for the course.) The SLO Committee reviews the completed *Course-Level SLOs Form* to determine whether (1) the SLO statement meets the four criteria for an effective SLO and (2) the SLO assessment meets the four criteria for an effective method of assessment. In the event the SLO Committee finds the information on the *Course-Level SLOs Form* lacking, the SLO Committee will provide training to help faculty write well defined SLOs and assessments. When the course is approved by the Curriculum Council, the SLOs and the Course Outline of Record are filed together on Docushare at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-244

Procedure for developing new SLOs for an existing course: Faculty who teach the course may decide at any time to add additional SLOs to the course. If this is the case, faculty will jointly develop the new SLO(s) and assessments and complete a *Course-Level SLOs Form* that includes the existing SLOs and the new SLO(s). (Note: The *Course-Level SLOs Form* should list all of the SLOs for the course.) The completed form is submitted to the SLO Committee via the SLO Coordinator. The SLO Committee reviews the completed *Course-Level SLOs Form* to determine whether (1) the SLO statement meets the four criteria for an effective SLO and (2) the SLO assessment meets the four criteria for an effective method of assessment. In the event the SLO Committee finds the information on the *Course-Level SLOs Form* lacking, the SLO Committee will provide training to help faculty write well defined SLOs and assessments.

Procedure for revising an SLO: An SLO may be revised at any time, as a result of faculty dialogue that occurs in Step 4 of the SLO Assessment Cycle. Faculty who teach the course will jointly revise the SLO and complete a *Course-Level SLOs Form* for the revised SLO. (Note: The *Course-Level SLOs Form* should list all of the SLOs for the course including the ones not being revised.) The completed form is submitted to the SLO Committee via the SLO Coordinator. The SLO Committee reviews the completed *Course-Level SLOs Form* to determine

whether (1) the SLO statement meets the four criteria for an effective SLO and (2) the SLO assessment meets the four criteria for an effective method of assessment. In the event the SLO Committee finds the information on the *Course-Level SLOs Form* lacking, the SLO Committee will provide training to help faculty write well defined SLOs and assessments.

Step 2: Develop, Review, or Revise an Assessment Method for Each Student Learning Outcome

There are many ways to assess SLOs. Examples include essays, case studies, portfolios, student projects, skills demonstrations, selected exam questions or surveys. Priority should be given to authentic assessment methods. The Director of Research and Planning and the SLO Coordinator(s) are resources for helping to develop effective authentic assessment methods (see Appendix E).

All sections of a course will use the same assessment method to allow for peer collaboration and meaningful discussion of teaching and learning.

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

- 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 be available to students 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?

Who develops the assessment method?

Faculty have the sole responsibility to develop the assessment method for each SLO statement. Preferably all faculty who teach a course will participate in the development of the assessment method. At a minimum, all faculty who teach the course will be invited to participate.

When is the assessment for a Course-Level Student Learning Outcome statement developed?

Often faculty develop the assessment method at the same time they develop the SLO statement. It is necessary to develop the assessment before completing the *Course-Level SLOs Form* which is submitted as

part of the curriculum process for developing a new course (see the description in Step 1 above.) The form can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-533

Can the assessment method be revised?

Yes. If, during the dialogue that occurs during Step 4, faculty discover that the assessment method does not effectively measure the SLO, then the assessment method should be revised. The Director of Research and Planning and the SLO Coordinator(s) are resources for helping to develop effective assessment methods.

How is the assessment method revised?

Faculty who teach the course will jointly revise the assessment and complete a *Course-Level SLO Form* for the revised assessment. The faculty who revised the assessment submit the completed form to the SLO Committee via the SLO Coordinator. (Note: The *Course-Level SLOs Form* should list all of the SLOs for the course including the ones whose assessment method is not being revised.) The SLO Committee reviews the completed *Course-Level SLOs Form* to determine whether (1) the SLO statements meet the four criteria for an SLO, (2) that the assessment (see Step 2 below) is not based on the final course grade, (3) the assessment is authentic when possible, and (4) the SLO and its assessment is written clearly and with enough detail that faculty who are teaching the course will be able to understand the SLO and its assessment. In the event the SLO Committee finds the information on the *Course-Level SLOs Form* lacking, the SLO Committee will provide training to help faculty write well defined SLOs and assessments.

Can students see the assessment methods by viewing the Course-Level SLOs Forms on Docushare?

Yes. *Course-Level SLOs Forms* posted on Docushare may be viewed by the public, including students. Since the assessment is on the form, faculty may want to word the assessment in a way that does not include the statement of the actual assessment question. Docushare can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-244

Here are two examples of assessments that do not include the statement of the actual assessment question:

> **HIST 17A**
>
> > **SLO Statement:** Upon successful completion of this course the student should be able to interpret primary and secondary sources.
> >
> > **Assessment:** Instructors will provide students reading material on primary and secondary sources and instruction on how to interpret them. Students will be assigned a standardized quiz that requires the interpretation of primary and secondary sources.
>
> **STU 50**
>
> > **SLO Statement:** Upon successful completion of this course the student should be able to determine the location of at least eight offices/college services that can increase the probability of student success.

Assessment: A map without labels will be passed out early and late in the semester, with students required to label and identify places at which services are offered that are designed to increase success.

What is Authentic Assessment?

Authentic assessment simulates a real world experience by evaluating the student's ability to apply critical thinking and knowledge or to perform tasks that may approximate those found in the work place or other venues outside of the classroom setting. When developing the assessment method, faculty should give priority to authentic assessment methods.   Information which may help to clarify authentic assessment is in Appendix E.

Some assessments are direct measures and some are indirect measures. Direct measures are more likely to be authentic assessments. Direct measures are usually assessed by faculty, whereas indirect measures are often assessed by the Office of Research and Planning. Below is a table that gives some examples of direct and indirect measures.

Direct Assessments	Indirect Assessments
o Essays o Exam questions o Term papers o Field work performance, internship performance, or service learning projects o Research projects o Case study analysis o Oral presentations o Performances o Portfolios of student work o Pre-test and post-test o Video production	o Alumni Surveys o Employer Surveys o External Reviewers o Licensure exam results o Student Exit Interview/Surveys

Step 3: Assess the Student Learning Outcomes

Generally, instructors will assess student performance during the semester when they are teaching the course. There may be some exceptions such as when a follow-up measure is used.

Before assessing the SLO for a course, faculty who teach the course should review the *Course-Level SLOs Form* on Docushare as a reminder of the assessment method described on the form. This assessment method is used in every section of the course. It is helpful if faculty dialogue early in the semester about the assessment. *Course-Level SLOs Forms* can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-244

Should every Student Learning Outcome be assessed every semester?

It is not necessary that all SLOs for a course be assessed each semester the course is taught. (Note: It is necessary that <u>at least one</u> SLO be assessed.) Faculty in the area will decide which SLOs to assess. The same SLO will be assessed in each section of the course. An SLO should be assessed several times in a row to gain meaningful insight from the SLO Assessment Cycle. Assessment works best when it is ongoing and not episodic. ALL sections of a course need to be assessed each term.

Should ALL or SOME students be assessed?

Since student learning outcomes are statements about the knowledge, skills, attitudes and abilities a student is expected to have *upon successful completion of the course*, most faculty will report assessment results only for students who successfully pass the course. This can be accomplished by assessing all students, but waiting to report the assessment results until after final grades have been assigned and only reporting results for students who passed the class.   On the other hand, some faculty may find more value in reporting assessment results for all students, giving a wider picture of student success and failure. This should be determined in advance so every faculty teaching a course is assessing the same population of students.

In courses that enroll a large number of students, faculty 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. If faculty want help with selecting random samples, contact the Office of Research and Planning.

When are assessment results due?

Assessment results for a course are due no later than the due date for the final course grade.

How are assessment results submitted?

Assessment results are submitted on the *Course Assessment Reporting Form*. The forms can be accessed at http://shastacollege.edu/SLOforms/

Step 4: Analyze the assessment results

This step is the heart of the Assessment Cycle. This is the step that provides faculty with the opportunity to dialogue on effective teaching practices. The goal is energetic, dynamic, positive, constructive and supportive conversations between faculty about how to improve student learning.

Step 4 begins when faculty meet to discuss and interpret the assessment results for each course. This step may require several meetings; often the initial meeting is scheduled for Fall Flex Day. The assessment results are distributed by the Office of Research and Planning. Faculty will meet to analyze assessment results and to use this analysis to complete the Annual Area Plan or Program Review.   Periodically faculty should also schedule time for a norming session for any rubric used to score learning outcomes (See Appendix F for information about Rubrics).   The *Annual Area Plan* and *Program Review* forms can be accessed at
http://www.shastacollege.edu/cms.aspx?id=3383

Who should analyze the results?

Faculty have the sole responsibility to analyze the SLO assessment results. Preferably all faculty who teach a course will participate in the analysis of the SLO data for that course. At a minimum, all faculty who teach the course will be invited to participate.

What if there is only one faculty who teaches the course? Does he or she still need to participate in this step?

All faculty should complete Step 4. There is value in faculty dialogue about effective teaching strategies across courses or even across disciplines. Faculty can meet with other faculty in their discipline or area who are interested in talking about effective teaching strategies and ways to improve student learning.

What questions should be asked when analyzing the results?

Here are a few questions that might serve as conversation starters:

- Was overall student performance acceptable?
- Are there concepts with which many students have difficulty?
- How much variation was there in 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?
- 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?
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

What are some possible outcomes of the dialogue in Step 4?

- Faculty dialogue about different teaching strategies and get ideas about new things to try next semester to improve student learning/success.
- Faculty question the importance or relevance of the SLO. If this is the case, faculty will need to revise the SLO and/or develop a new SLO.
- Faculty identify issues which may be interfering with student success on the SLO that are not necessarily related to presentation of the material or course content. For example, faculty may decide to review the prerequisite for the course, or cut scores for placement tests. Or Faculty may also decide to refer students to workshops to help with time management or study skills.
- Faculty realize that the assessment method, including timing, is different between instructors. If this is the case, faculty should agree on the assessment method and on its timing.
- Faculty identify resources needed to improve student learning; for example equipment, materials, embedded tutoring.   If this is the case, identify that resource in the Annual Area Plan which ties SLO assessment data to resource allocation and institutional integrated planning.
- Faculty discover that they have different interpretations about what the SLO means. If this is the case, faculty should dialogue until an agreement is reached.

- Faculty discover that they are getting a wide variety of student responses indicating that the SLO assessment is ambiguous. If this is the case, faculty should revise the assessment method to make the results more meaningful.
- Faculty agree that they have thoroughly explored effective strategies to improve student learning on a particular SLO. If this is the case, faculty should begin to assess a new SLO.
- Faculty are confused about what the assessment results mean. If this is the case, contact the Office of Research and Planning for training on how to interpret the results.
- Faculty discover that the rubric is being interpreted or applied differently from one instructor to another. If this is the case, faculty should schedule a norming session. (See Appendix F for information about norming rubrics.)

How is the completion of Step 4 documented?

After faculty have met to discuss assessment results and made plans for improvement, a faculty member should be designated to complete the *Annual SLO Summary Report Form* for the course. This form must be submitted by the third Monday in September. The form can be accessed at http://shastacollege.edu/SLOforms/

Step 5: Apply the results to improve outcomes and then assess the effectiveness of these improvements

Implement the changes and plans for improvement identified in Step 4 and/or assess the effectiveness of any previous improvements. Document the appropriate findings in Annual Area Plans and Program Reviews.

Chapter 2 -
The Library Student Learning Outcomes Assessment Cycle

What is a Library Student Learning Outcome?

A **Library** Student Learning Outcome (LSLO) is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successfully using library services. An SLO starts with the phrase, "Upon successful library instruction or use of library resources or services, a student should be able to …" To evaluate the effectiveness of an SLO statement use the Rubric on Evaluating Learning Outcomes in Appendix B.

An LSLO statement meets four criteria:

1. An LSLO states what a student will be able to do upon successful library instruction or use.
2. An LSLO is expressed using active verbs.
3. An LSLO is stated in terms that make it measurable.
4. An LSLO supports at least one of the Institutional Student Learning Outcomes (ISLOs)

What is a Library Student Learning Outcome Assessment?

A **Library** Student Learning Outcome assessment (LSLO) identifies how students will be evaluated to determine whether or not successful completion of the learning outcome has been achieved.

A **Library** Student Learning Outcome assessment meets the following four criteria. To evaluate the effectiveness of an LSLO assessment use the Rubric for Evaluating Learning Outcomes Methods of Assessment in Appendix C.

1. Successful completion of the assessment is not based on the final course grade.
2. The assessment clearly identifies the criteria for student success.
3. The assessment clearly identifies how and when the assessment will be administered.
4. The assessment is authentic.

What is the difference between a Library Student Learning Outcome and a library objective?

As a rule of thumb, SLOs are broad whereas objectives are specific. As a result, a library activity will typically have more objectives than outcomes. Often the outcomes are comprised of what the student can do as the result of combining together several objectives. That is, a cluster of objectives might support a single SLO. However, for some activities it may be appropriate for an SLO to be the same as one of the measurable objectives.

The **Library Student Learning Outcomes Assessment Cycle** has five steps:

1. Develop or revise Library Student Learning Outcomes (SLOs)
2. Develop an assessment method for each SLO
3. Assess the SLOs
4. Analyze the assessment results

5. Apply the results to improve outcomes and then assess the effectiveness of these improvements

Repeat, repeat, repeat…

Following is a description of each step of the Assessment Cycle

Step 1: Develop or Revise Library Student Learning Outcomes

Who develops or revises Library Student Learning Outcomes?

Faculty librarians have the sole responsibility to develop or revise SLOs. Preferably all faculty librarians will participate in the development or revision of the SLOs for individual activities and services. At a minimum, all faculty librarians will be invited to participate.

When are Library Student Learning Outcomes developed or revised?

New services: Library SLOs are developed at the time a new service is developed.

Existing services: New SLOs or existing SLOs may be revised at any time based on the results of librarian faculty dialogue about the SLO assessment results.

What is the Procedure for developing or revising Library Student Learning Outcomes?

Procedure for developing SLOs for a new service: When a new library service is initiated, a Library SLO Form will be completed and posted on the Library Student Learning Outcomes website. The blank *Library SLO Form* may also be found on the Library Student Learning Outcomes website at www.shastacollege.edu/library/report.

Procedure for developing new SLOs for an existing service: Faculty librarians will jointly develop the new SLO(s) and complete a *Library SLO Form*. A blank *Library SLO Form* is on the Library Student Learning Outcomes website at www.shastacollege.edu/library/report.

Procedure for revising an SLO: An SLO may be revised as a result of faculty librarian dialogue that occurs in Step 4 of the SLO assessment cycle. Faculty librarians will jointly revise the SLO and complete a *Library SLO Form* for the revised SLO. The blank *Library SLO Form* is on the Library Student Learning Outcomes website at www.shastacollege.edu/library/report.

Where are SLOs Documented?

Completed *Library SLO Forms* can be accessed on the Library Student Learning Outcomes website at www.shastacollege.edu/library/report.
SLOs in other courses that incorporate library instruction or services may also be documented on the Library Student Learning Outcomes website at http://shastacollege.edu/library/ www.shastacollege.edu/library/report.

Step 2: Develop an Assessment Method for Each SLO

All occurrences of a service will use the same assessment method to allow for peer collaboration and meaningful discussion of teaching and learning. In developing an assessment method faculty librarians will need to answers questions such as the following:

- When will the assessment occur?
- Which library instruction classes, library workshops, or library services will be assessed?
- Who will administer the assessment?
- Who exactly will complete the assessment? The obvious answer is usually "the students participating in the library activity," but what does this mean? All students who happen to be present on the day of the assessment? Or will faculty librarians follow-up to get all students to complete the assessment? 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?
- What instructions or information will the students get about this assessment?
- During the assessment what type of questions may the librarian answer? Not answer?
- If there are ONLINE or ITV participants, what logistics need to be worked out for those occurrences?
- What are other special considerations for this particular assessment?

Who develops the assessment method?

Faculty librarians, in collaboration with faculty partners in other disciplines when appropriate, are responsible for developing the assessment method for each SLO statement. Preferably all faculty librarians will participate in the development of the assessment method. At a minimum, all faculty librarians will be invited to participate.

When is the assessment for an SLO statement developed?

Faculty librarians should develop the assessment method at the same time they develop the SLO statement.

Can the assessment method be revised?

The assessment method should be revised any time that faculty librarians discover that the assessment method does not effectively measure the SLO. The Director of Research and Planning and the SLO Coordinators are resources for helping to develop effective assessment methods.

How is the assessment method revised?

Faculty librarians will jointly revise the assessment and complete a *Library SLO Form* for the revised assessment. The blank *Library SLO Form* is on the Library Student Learning Outcomes website at www.shastacollege.edu/library/report

Where is the list of Library **SLOs?**

Completed *Library SLO Forms* are on the Library Student Learning Outcomes website at www.shastacollege.edu/library/report

Step 3: Assess the SLOs

Before assessing a Library SLO, faculty librarians should review the *Library SLO Form* as a reminder of the assessment method described on the form. This assessment method is used in every occurrence of the activity to be assessed. It is helpful if faculty librarians dialogue early in the semester about the assessment. If there are many occurrences of the particular activity, it is possible to assess a sample as long as the sample is large enough to produce meaningful data. The Director of Research and Planning can help pick a sample.

Should every SLO be assessed every semester?

It is not necessary that all SLOs be assessed each semester. (Note: It is necessary that at least one SLO be assessed.) Faculty librarians will decide which SLOs to assess. The same SLO will be assessed for each occurrence of the service. An SLO should be assessed several times in a row to gain meaningful insight from the SLO Assessment Cycle.

Should ALL or SOME students be assessed?

Faculty librarians may opt to select a representative sample of students to assess. The sample should be large enough to provide a good variety of student work and should be selected randomly. Samples and surveys will be designed with the input of the Office of Research and Planning.

When are assessment results due?

Assessment results are due no later than the due date for final course grades.

How are assessment results submitted?

Assessment results are submitted on the *Library SLO Assessment Reporting Form*. The form can be accessed at www.shastacollege.edu/library/report

Step 4: Analyze the assessment results

This step is the heart of the Assessment Cycle. This is the step that provides faculty with the opportunity to dialogue on effective library practices. The goal is energetic, dynamic conversations between faculty librarians and faculty partners about how to improve student learning. Results of the analysis may result in goals to be included in the Library's *Annual Area Plan*. The *Annual Area Plan* form can be accessed at http://www.shastacollege.edu/cms.aspx?id=3383

When is Step 4 Completed?

Step 4 begins on Fall Flex Day when faculty librarians meet to discuss and interpret the assessment results for each activity. If faculty librarians do not have adequate time on Flex Day to analyze assessment data in a meaningful way for all outcomes, they should plan additional meetings within the month to complete this step. The assessment results are posted on the Library's Student Learning Outcomes website at www.shastacollege.edu/library/report

Who should analyze the results?

Faculty librarians have the responsibility to analyze the SLO assessment results. Preferably all faculty librarians will participate in the analysis of the SLO data for that activity. At a minimum, all faculty librarians will be invited to participate.

What questions should be asked when analyzing the results?

Here are a few questions that might serve as conversation starters:

- 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? 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?

What are some possible outcomes of the dialogue in Step 4?

- Faculty librarians dialogue about different teaching strategies and get ideas about new things to try next semester.
- Faculty librarians question the importance or relevance of the SLO. If this is the case, faculty librarians may decide to review content and consider revising the activity or service.
- Faculty librarians identify issues which may be interfering with student success on the SLO that are not necessarily related to presentation of the material or activity.
- Faculty librarians identify resources needed to improve student learning; for example equipment, materials, embedded tutoring. If this is the case, identify that resource in the *Annual Area Plan* which ties SLO assessment data to budget allocation.
- Faculty librarians discover that they have different interpretations about what the SLO means. If this is the case, faculty librarians should dialogue until an agreement is reached.
- Faculty librarians discover that they are getting a wide variety of student responses indicating that the SLO is ambiguous. If this is the case, faculty librarians should revise the SLO to make assessment results more meaningful.
- Faculty librarians agree that they have thoroughly explored effective strategies to improve student learning on a particular SLO. If this is the case, faculty librarians should develop a new SLO.
- Faculty librarians are confused about what the assessment results mean. If this is the case, contact the Office of Research and Planning for training on how to interpret the results.

How is the completion of Step 4 documented?

After faculty librarians have met to discuss assessment results and plans for improvement, a faculty librarian should be designated to complete *the Annual Library SLO Summary Report Form* and post it on the Library's

Student Learning Outcomes website at www.shastacollege.edu/library/report by the third Monday in September. The blank form can be accessed on the Library's Student Learning Outcomes website at www.shastacollege.edu/library/report.

Step 5: Apply the results to improve outcomes and then assess the effectiveness of these improvements

Implement the changes and plans for improvement identified in Step 4 and/or assess the effectiveness of any previous improvements. Document the appropriate findings in Annual Area Plans and Program Reviews.

Chapter 3 -
The Student Services Learning Outcomes Assessment Cycle

What is a Student Services Learning Outcome?

A Student Services Learning Outcome (SSLO) is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of a student services activity (e.g. counseling appointment, orientation, assessment, field trip). An SSLO starts with the phrase, "Upon successful completion of this activity a student should be able to …"

A Student Services Learning Outcome statement meets the following four criteria:

1. An SSLO states the knowledge, skills, attitudes or abilities a student is expected to have upon successful completion of the activity.
2. An SSLO is expressed using active verbs.
3. An SSLO is stated in terms that make it measurable.
4. An SSLO supports one of the Institutional Student Learning Outcomes.

What is a Student Services Learning Outcome Assessment?

A SSLO identifies how students will be evaluated to determine whether or not successful completion of the student services activity (e.g. counseling appointment, orientation, assessment, field trip) has been achieved.

A SSLO assessment meets the following four criteria. To evaluate the effectiveness of an SSLO assessment use the Rubric for Evaluating Learning Outcome Methods of Assessment in Appendix C.

1. Successful completion of the assessment is not based on the final course grade.
2. The assessment clearly identifies the criteria for student success.
3. The assessment clearly identifies how and when the assessment will be administered.
4. The assessment is authentic.

The **Student Services Learning Outcomes Assessment Cycle** has five steps:

1. Develop or revise Student Services Learning Outcomes (SSLOs)
2. Develop an assessment method for each SSLO
3. Assess the SSLOs
4. Analyze the assessment results
5. Apply the results to improve outcomes and then assess the effectiveness of these improvements

      Repeat, repeat, repeat…

Following is a description of each step of the Assessment Cycle:

Step 1: Develop or Revise Student Services Learning Outcomes

Who develops or revises Student Services Learning Outcomes?

Faculty have the responsibility to develop or revise SSLOs with the assistance of student services administrators and staff in the assigned areas. Preferably all faculty who are involved in the activity will participate in the development or revision of the SSLOs for that activity.

What is the procedure for developing or revising Student Services Learning Outcomes?

Procedure for developing SSLOs: When a new activity is targeted for assessment of an SSLO, or when a new SSLO is being developed for an existing activity, the faculty and administrators in the area will meet to identify the SSLO and method of assessment. These will be recorded on the *SSLO Form* and submitted to the Student Services Council for verification that the SSLOs meet the four criteria listed above. Note: The *SSLO Form* should list all of the SSLOs for the activity. Upon verification from the Student Services Council, SSLOs will be posted on the Student Services website at http://shastacollege.edu/studentservices/

Procedure for revising an SSLO: An SSLO may be revised as a result of dialogue that occurs in Step 4 of the SSLO Assessment Cycle. Area personnel will jointly revise the SSLO and complete an *SSLO Form* for the revised SSLO. (Note: The *SSLO Form* should list all of the SSLOs for the activity including the ones not being revised.) The completed form is submitted to Student Services Council for review to ensure that the revised SSLO(s) still meet the four criteria for an SSLO. The approved SSLOs are then posted on the Student Services website at http://shastacollege.edu/studentservices/

Where are SSLOs published?

Completed *SSLO Forms* are posted on the Student Services website. Additionally, individual areas (Counseling, Transfer Center, Financial Aid, EOPS/CARE, DSPS, etc.) will publicize their Student Services Learning Outcomes so that students are aware of the individual student services learning outcomes expected from that area. Completed forms can be accessed at at http://shastacollege.edu/studentservices/

Additional guidelines for constructing SSLOs:

In generating ideas of SSLOs, here are some questions to consider:

- Ultimately what do you hope students will walk away with when they complete this activity?
- In terms of the big picture, what do you consider to be the main goals of this activity?
- What would you hope or expect that students can do in terms of applying the knowledge or skills that have been developed through participation in this experience?

An SSLO is expressed using active verbs (see Appendix D).

An SSLO is stated in terms that make it measurable.

> Example

> At the conclusion of an academic counseling appointment, the student should be able to:
> 1) State his/her educational goal or the next step required to determine his/her educational goal

2) Identify which classes to take in the following semester or to complete his/her educational goal

Step 2: Develop an Assessment Method for Each SSLO

There are many ways to assess SSLOs. In developing an assessment method, area personnel will need to answers questions such as the following:

- When will the assessment occur?
- Who will administer the assessment?
- What materials and resources will the students have while completing the assessment?
- How much time will the students have to complete the assessment?
- What instructions or information will the students get about this assessment?
- If there are activities that are offered through distance education formats, what logistics need to be worked out for those activities?
- What are other special considerations for this particular assessment?

The Director of Research and Planning is a resource for helping to develop effective assessment methods.

Some assessments are direct measures and some are indirect measures. Direct measures are usually assessed by area staff, whereas indirect measures are often assessed by the Office of Research and Planning.

Who develops the assessment method?

Faculty have the primary responsibility to develop the assessment method for each SSLO statement, along with assistance from other area personnel.

When is the assessment for an SSLO statement developed?

The assessment method is developed at the same time they develop the SSLO statement. It is necessary to develop the assessment before completing the *SSLO Form* in Step 1 above.

Can the assessment method be revised?

If, during the dialogue that occurs during Step 4, area personnel discover that the assessment method does not effectively measure the SSLO, then the assessment method should be revised. The Director of Research and Planning and the Student Services Council are resources for developing effective assessment methods.

Step 3: Assess the SSLOs

Assessment of SSLOs will occur at designated times throughout the year. This assessment method must be used consistently for the same activity even if it is conducted at different times. It is helpful if faculty and staff dialogue early in the semester about the assessment.

Should every SSLO be assessed every semester?

It is not necessary that all SSLOs for an activity be assessed each semester. Faculty and/or staff in the area will decide which SSLOs to assess. An SSLO should be assessed several times in a row to gain meaningful insight from the SSLO Assessment Cycle. Assessment works best when it is ongoing and not episodic.

Should ALL or SOME students be assessed?

In activities that include a large number of student participants, faculty and staff may opt to select a representative sample of students to assess. The sample should be large enough to provide a good variety of student responses and should be selected randomly.

When are assessment results due?

Assessment results for an activity are due by the end of the fiscal year.

How are assessment results submitted?

Assessment results are submitted on the *SSLO Assessment Reporting Form*. The form can be accessed at http://shastacollege.edu/studentservices/

Step 4: Analyze the assessment results

This step is the heart of the Assessment Cycle. This is the step that provides faculty and staff with the opportunity to dialogue on effective practices. The goal is energetic, dynamic, positive, constructive and supportive conversations amongst faculty and staff about how to improve student learning.

Step 4 begins in the summer as a part of the preparation for the Annual Area Plan. The assessment results are distributed by the Office of Research and Planning. Generally multiple meetings are required to analyze assessment data in a meaningful way for all activities. The *Annual Area Plan* form can be accessed at http://www.shastacollege.edu/cms.aspx?id=3383

Who should analyze the results?

Faculty, in collaboration with student services administrators and staff, have the primary responsibility to analyze the SSLO assessment results.

What questions should be asked when analyzing the results?
Here are a few questions that might serve as conversation starters:

- Was overall student performance acceptable?
- Are there concepts with which many students have difficulty?
- How much variation was there in 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 results?

- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

What are some possible outcomes of the dialogue in Step 4?

- Dialogue about different instructional strategies and get ideas about new things to try in the future.
- Question the importance or relevance of the SSLO. If this is the case, area personnel may decide to review content and consider revising the activity.
- Identify issues which may be interfering with student success on the SSLO that are not necessarily related to the activity itself.
- Realize that the assessment method, including timing, is a variable. If this is the case, area personnel should agree on the assessment method and its timing.
- Identify resources needed to improve student learning; for example, equipment, materials, expanded student support resources. If this is the case, identify that resource in the Annual Area Plan which ties SSLO assessment data to budget allocation and institutional integrated planning.
- Discover that there are different interpretations about what the SSLO means. If this is the case, area personnel should dialogue until an agreement is reached.
- Discover that there is a wide variety of student responses indicating that the SSLO is ambiguous. If this is the case, area personnel should revise the SSLO to make assessment results more meaningful.
- Agree that they have thoroughly explored effective strategies to improve student learning on a particular SSLO. If this is the case, area personnel should begin to assess a new SSLO.
- Confusion about what the assessment results mean. If this is the case, contact the Office of Research and Planning for training on how to interpret the results.

How is the completion of Step 4 documented?

After area personnel have met to discuss assessment results and plans for improvement, a staff member should be designated to complete *The Annual SSLO Summary Report Form* for the activity. This form must be submitted by the third Monday in September.

Step 5: Apply the results to improve outcomes and then assess the effectiveness of these improvements

Implement the changes and plans for improvement identified in Step 4 and/or assess the effectiveness of any previous improvements. Document the appropriate findings in Annual Area Plans and Program Reviews.

Chapter 4 -
The Program Learning Outcomes Assessment Cycle

An "educational program" is defined in Title 5, Section 55000(g) as "an organized sequence of courses leading to a defined objective, a degree, a certificate, a diploma, a license, or transfer to another institution of higher education." To be consistent with this definition, Shasta College has defined two types of programs:

> 1) the Degree and Certificate Programs which are comprised of cohesive sets of courses leading to a degree or certificate

> 2) the Foundational Skills Program includes courses in Basic Skills, ESL, Student Development, Skills Development, 100-level Math and English and the ESL, Reading, Math and Writing Learning Centers.

What are Program Learning Outcomes?

Each degree or certificate program must have a comprehensive list of Program Learning Outcomes (PLOs) describing the skills gained through successful completion of the program. Each Program Learning Outcome in the comprehensive list is a measurable statement about the knowledge, skills, attitudes, and abilities a student is expected to have upon successful completion of the requirements for the degree or certificate.

Program Learning Outcomes start with the phrase, "Upon successful completion of this degree (or certificate) a student should be able to ..."

A PLO for a degree or certificate meets four criteria:

1. A PLO states what a student is expected to be able to do upon successful completion of the degree or certificate.
2. A PLO is expressed using active verbs.
3. A PLO is stated in terms that make it measurable.
4. Each PLO for the degree or certificate is identified with one of the Institutional Student Learning Outcomes (ISLOs)

What is a Program Learning Outcome Assessment?

A PLO assessment identifies how students will be evaluated to determine whether or not successful completion of the requirements for the degree or certificate has been achieved.

A PLO assessment meets the following four criteria. To evaluate the effectiveness of a PLO assessment use the Rubric for Evaluating Learning Outcome Methods of Assessment in Appendix C.

1. Successful completion of the assessment is not based on the final course grade.
2. The assessment clearly identifies the criteria for student success.
3. The assessment clearly identifies how and when the assessment will be administered.
4. The assessment is authentic.

Do all degrees and certificates need Program Learning Outcomes?

Yes. All degrees and certificates must have a comprehensive list of measurable PLOs describing the skills gained through successful completion of the program.

How many Program Learning Outcomes are necessary for a degree or certificate program?

There is not a specific number of PLOs required. But the process of developing PLOs involves producing a comprehensive list of PLOs describing the "big picture" skills gained through successful completion of the program. Avoid restating a long list of Course-Level SLOs from all of the major courses.

What is the difference between a Course-Level Student Learning Outcome and a Program Learning Outcome?

Often the list of PLOs for a degree or certificate includes a PLO that is exactly the same as a Course-Level SLO that is assessed in one of the courses required for the degree. It might also happen that one PLO is actually the combination of several Course-Level SLOs. However, PLOs are not required to correspond directly to Course-Level SLOs.

What is the point of assessing Program Learning Outcomes when students are already awarded degrees and certificates?

Program Learning Outcomes give information to faculty in the major (and employers in the field) about whether most students earning the degree or certificate actually have the skills expected upon the completion of the program. This gives faculty information about how to improve the program. It also gives prospective employers information about skill level of the typical graduate of the program.

Where are Program Learning Outcomes Documented?

Completed *PLOs Forms* are on Docushare. Additionally, PLOs for each degree and certificate are listed in the Shasta College catalog. *PLOs Forms* can be accessed at
http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-618

Should Program Learning Outcomes be included on the Syllabus?

It is not necessary to include PLOs on any course syllabus.

The **Program Learning Outcomes Assessment Cycle** has five steps

Step 1.	Develop, review, or revise Program Learning Outcomes (PLOs)
Step 2	a. Develop, review, or revise an assessment method for each PLO
	b. Map PLOs to courses required for the degree or certificate
	c. Map PLOs to ISLOs
Step 3.	Assess the PLOs
Step 4.	Analyze the assessment results
Step 5.	Apply the results to improve outcomes and then assess the effectiveness of these improvements
	Repeat, repeat, repeat…

Step 1: Develop, Review, or Revise Program Learning Outcomes

Who develops, reviews, or revises Program Learning Outcomes?

Faculty have the sole responsibility to develop, review, or revise PLOs.

Foundational Skills Program: PLOs for the Foundational Skills Program are developed by faculty who teach courses in that program. Preferably all faculty who teach in the program will participate in the development or revision of the PLOs. At a minimum, all faculty who teach a course in the Foundational Skills Program will be invited to participate.

AA Degree in University Studies and the AS Degree in General Studies: The PLOs for the AA Degree in University Studies and the AS Degree in General Studies are developed by faculty through the General Education Committee and the SLO Committee. The outcomes developed by the General Education Committee are called General Education Learning Outcomes (GELOs), and are described in Chapter 5. The outcomes developed by the SLO Committee are generally indirect assessments and are assessed through the Office of Research and Planning. Such PLOs might include graduation rates, transfer rates, job placement rates, employer satisfaction rates, or alumni surveys. Data regarding these PLOs is distributed to the SLO Committee and the GE Committee for analysis and to plan for improvement.

All Other Degrees and Certificates: PLOs for all other degrees and certificates are developed by faculty in the major area of study. Preferably all faculty who teach one of the "major" courses will participate in the development or revision of the PLOs for that degree or certificate. At a minimum, all faculty who teach a "major" course will be invited to participate.

When are Program Learning Outcomes developed, reviewed or revised?

New programs: PLOs are developed at the time the degree or certificate is developed. A completed *PLOs Form* is submitted to the SLO Committee at the same time the degree or certificate is submitted to the Curriculum Council. *PLOs Forms* can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-618

Existing programs: New PLOs may be developed or existing PLOs may be revised at any time based on the results of faculty dialogue about the PLO assessment results, or completing the Program Review Process or based on changes in the field. *Program Review* forms can be accessed at http://www.shastacollege.edu/cms.aspx?id=3383

What is the Procedure for developing or revising Program Learning Outcomes?

Procedure for developing PLOs for a new degree or certificate: When the proposed degree or certificate is submitted to the Curriculum Council, a completed *PLOs Form* for the program is submitted to the SLO Committee via the SLO Coordinator. (Note: The *PLOs Form* should list all of the PLOs for the degree or certificate.) The SLO Committee reviews the completed *PLOs Form* to determine whether (1) each of the PLO statements meet the four criteria for a PLO, (2) that none of the assessments (see Step 2 below) is based on the final course grade, (3) the assessment is authentic when possible, and (4) the PLOs and their assessment are written clearly and with enough detail that faculty who are teaching in the program will be able to understand the PLOs and their assessments. In the event the SLO Committee finds the information on the

PLOs Form lacking, the SLO Committee will provide training to help faculty write well defined PLOs and assessments.

Procedure for developing new PLOs for an existing program: Faculty who teach a course required for the degree or certificate will jointly participate in the development or revision of the PLOs for that degree or certificate and complete a *PLOs Form* that includes the existing PLOs and the new PLO(s). The completed form is submitted to the SLO Committee via the SLO Coordinator. (Note: The *PLOs Form* should list all of the PLOs for the degree or certificate.) The SLO Committee reviews the completed *PLOs Form* to determine whether (1) each of the PLO statements meet the four criteria for a PLO, (2) that none of the assessments (see Step 2 below) is based on the final course grade, (3) the assessment is authentic when possible, and (4) the PLOs and their assessment are written clearly and with enough detail that faculty who are teaching in the program will be able to understand the PLOs and their assessments. In the event the SLO Committee finds the information on the *PLOs Form* lacking, the SLO Committee will provide training to help faculty write well defined PLOs and assessments.

Procedure for revising a PLO: A PLO may be revised as a result of faculty dialogue that occurs in Step 4 of the PLO assessment cycle. Faculty who teach courses in the program will jointly revise the PLO and complete a *PLOs Form* for the revised PLO. The completed form is submitted to the SLO Committee via the SLO Coordinator. The SLO Committee reviews the completed *PLOs Form* to determine whether (1) each of the PLO statements meet the four criteria for a PLO, (2) that none of the assessments (see Step 2 below) is based on the final course grade, (3) the assessment is authentic when possible, and (4) the PLOs and their assessment are written clearly and with enough detail that faculty who are teaching in the program will be able to understand the PLOs and their assessments. In the event the SLO Committee finds the information on the *PLOs Form* lacking, the SLO Committee will provide training to help faculty write well defined PLOs and assessments.

Measurable or not measurable?

Here is an example of a PLO that is not measurable:

> *Upon successful completion of this degree the student should be able to pass a licensing exam.*

Here is an example of a PLO from Shasta College that is measurable:

> **Associate Degree in Science: Registered Nursing**
>
> *Upon successful completion of this degree 90% of those students who are eligible to sit for the National Council Licensing Examination for Registered Nursing (NCLEX-RN) will pass their examination within the first 6 months on the first attempt.*

Step 2a: Develop an Assessment Method for Each Program Learning Outcome

The PLOs for degrees and certificates (not including the AA Degree in University Studies and the AS Degree in General Studies) may be assessed in one (or more) of the following five ways:

1. In a capstone course, students complete a project designed to simulate a real world environment (authentic assessment). Students who demonstrate, at a predetermined level, the skills necessary to complete this project have successfully met this PLO. A rubric (see Appendix F), designed by faculty, will be used to ensure consistency. See below for information about capstone courses.

2. Students are assessed through a predetermined group of Course-Level SLOs which in total simulate a real world environment. Students who successfully meet a predetermined portion of the course-level SLOs have successfully met this PLO. If faculty choose this assessment method, they will need to plan in advance how to manage the data to allow comparisons for individual students across courses.

3. Students are assessed through a portfolio of work products from courses within the major. Students who demonstrate, at a predetermined level, the skills for this major have successfully met this PLO. A rubric, designed by faculty, will be used to ensure consistency.

4. Students are assessed through an exit exam which tests on a list of exit skills predetermined by faculty. Students who pass the exam have successfully met this PLO. If faculty choose this assessment method, they will decide in advance who will take the exam, and how the exam will be administered.

5. Students will take a licensure exam or similar professional exam in their field of study administered by a professional organization. Students who pass the exam on the first attempt have successfully met this PLO.

Priority should be given to authentic assessment methods. Information about authentic assessment can be found in Appendix E. One way authentic assessment for programs can be achieved is by incorporating a capstone course within the program.

What is a capstone course?

> *"The capstone course is an opportunity for students to demonstrate that they have achieved the goals for learning established by their educational institution and major department. The course should be designed to assess cognitive, affective and psychomotor learning and to do so in a student-centered and student-directed manner which requires the command, analysis and synthesis of knowledge and skills."* - Robert C. Moore

A capstone course provides the perfect opportunity for authentic assessment of all (or most) of the PLOs in a program. Most of the difficult aspects of implementing effective assessments are eliminated when capstone courses are used to assess the PLOs.

It is possible that a program without a capstone course, already has a course that could easily be modified to serve as a capstone. There may be a course that students typically take their last semester, with many of the other courses in the program being prerequisites. With minor modifications to the content of such a course, it could serve as a capstone course.

Who develops the assessment method?

Faculty have the sole responsibility to develop the assessment methods.

Foundational Skills Program: All faculty who teach in the Foundational Skills Program will be invited to participate in the development of the assessment method for the Foundational Skills PLOs.

AA Degree in University Studies and the AS Degree in General Studies: Assessments for General Education Learning Outcomes (GELOs) are developed by faculty who teach the general education course. For further information about GELOs, see the chapter on GELOs. For the additional PLOs that have been developed by the SLO Committee, assessments will be developed jointly by the SLO Committee and the Office of Research and Planning. The assessments will be approved by the SLO Committee.

All Other Degrees and Certificates: Preferably all faculty who teach one of the "major" courses will participate in the development of the assessments for the PLOs for that degree or certificate. At a minimum, all faculty who teach a "major" course will be invited to participate.

When is the assessment for a Program Learning Outcome statement developed?

Often faculty develop the assessment method at the same time they develop the PLO statement. It is necessary to develop the assessment before completing the *PLOs Form* which must submitted as part of the curriculum process for developing a new degree or certificate (see the description in Step 1 above.) *PLOs Forms* can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-618

Can the assessment method be revised?

The assessment method should be revised any time that faculty discover that the assessment method does not effectively measure the PLO.

How is the assessment method revised?

Appropriate faculty will jointly revise the assessment method and complete a *PLOs Form* for the revised assessment. Note: All PLOs for the program should be included on the form. The completed form is sent to the SLO Coordinator who will forward it to the Office of Academic Affairs for inclusion on Docushare. *PLOs Forms* can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-618

Step 2b: Map Program Learning Outcomes to courses required for the degree or certificate

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 that is on the *PLOs Form*.

This is an example showing how Step 2b was completed for a Construction Technology Certificate.

The certificate has six required major courses (including a Math course), and has six PLOs.

Program Courses (list each course below and add	PLO #1	PLO #2	PLO #3	PLO #4	PLO #5	PLO #6

lines as necessary)						
CONS 52			X		X	X
CONS 56	X	X	X	X	X	X
CONS 54	X	X	X	X	X	X
CONS 178		X	X		X	
CONS 84			X		X	X
MATH 100			X			X

This table says, for example, that students will have the opportunity to gain the skills identified in PLO 1 while enrolled in CONS 54 and CONS 56 (i.e., Upon successful completion of the certificate, a student should be able to identify construction hazards on the job site; including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.). It also says, for example, that students who successfully complete CONS 84 will have the opportunity to gain the skills identified in PLOs 3, 5 and 6.

Does every course required for the degree or certificate need to support a PLO?

Yes. If a required course does not support any of the PLOs for the program, then faculty in the program should determine why and discuss whether it is appropriate for the course to be required for the degree or certificate. If the course is an appropriate requirement, then there may be a PLO missing from the comprehensive PLO list.

Step 2c: Map PLOs to ISLOs

Below is the matrix for completing Step 2c which is on the *PLOs Form*. Add additional rows as necessary.

STEP 2c: Provide a matrix (table) that links the degree or certificate PLOs with the Institutional Student Learning Outcomes (ISLOs).						
Institutional Student Learning Outcomes (ISLOs): 1. Critical thinking 2. Information competency 3. Effective communication 4. Quantitative reasoning 5. Self-efficacy 6. Workplace skills 7. Community and global awareness						
PLO # (from Step 1 above)	ISLO 1	ISLO 2	ISLO 3	ISLO 4	ISLO 5	ISLO 6	ISLO 7
PLO 1							
PLO 2							

How many ISLOs should be checked for each PLO?

Only one ISLO should be marked. The criteria for marking an ISLO is that the assessment for the PLO could also be a valid assessment of the ISLO. A PLO may have content which overlaps several of the ISLOs. However, this does not mean that the assessment of the PLO is actually an assessment of the ISLO.

Here are some examples of PLOs and how they might be matched to an ISLO:

Example 1: Here is a PLO that might be from a Math degree.

PLO: *Upon successful completion of this degree a student should be able to accurately apply the four steps of problem solving (below) to solve problems.*
> *1) Demonstrate understanding of the problem*
> *2) Choose an appropriate problem-solving strategy*
> *3) Effectively solve the problem using the chosen strategy*
> *4) Clearly state the correct solution to the problem.*

This PLO is an assessment of ISLO 1 – Critical Thinking. While this PLO requires some skill in Effective Communication (ISLO 3) and Quantitative Reasoning (ISLO 4), it is not a direct assessment of those skills. This PLO is specifically assessing problem solving which is a component of Critical Thinking so the only ISLO checked would be ISLO 1.

Example 2: Here is a PLO that might be from a Construction certificate.

PLO: *Upon successful completion of this certificate, a student should be able to identify construction hazards on the job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.*

This PLO is an assessment of ISLO 6 – Workplace Skills. This PLO requires some skill in Critical Thinking (ISLO 1) and Effective Communication (ISLO 3). However, the skill actually being assessed is a workplace skill, so the only ISLO checked would be ISLO 6.

Must there be an ISLO checked for every PLO?

Yes. One of the four criteria for a PLO is that the PLO must be identified with one of the ISLOs. If this is not the case, then the PLO should be rewritten. The Director of Research and Planning can help with this.

Step 3: Assess the Program Learning Outcomes

The *PLOs Form* outlines the assessment for each PLO. The PLOs should be assessed exactly as described on the form. *PLOs Forms* can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-618

Who should be assessed?

Faculty should answer this question before assessment occurs. The answer to this question will depend on what information will most help faculty improve the program. Also, in many cases, faculty will need to plan in advance of the assessment how the results will be saved for future analysis. For example, if Sarah Smith

succeeds at PLO 1 which is assessed in BIO 10, how will faculty store this information to have access to the assessment result in the future?   If a capstone course is used for PLO assessment, this difficulty is moot.

Does an unsatisfactory assessment result need to prevent a student from being awarded the degree or certificate?

No.

Step 4: Analyze the assessment results

This step is the heart of the Assessment Cycle. This is the step that provides faculty with the opportunity to dialogue on how to improve the program. The goal is energetic, dynamic conversations between teachers about how to improve student learning. Step 4 begins when faculty meet to discuss and interpret the assessment results for the program.

Who should analyze the results?

In general, faculty have the responsibility to analyze the PLO assessment results. However, faculty may find it useful to ask the Director of Research and Planning for assistance in analyzing the results.

Which students are included when analyzing the assessment results?

This answer to this question will vary from program to program. Faculty in some programs will choose only to include the assessment results of students who have applied for and earned the degree or certificate. Faculty from other programs might choose to include the assessment results of students who have completed a certain number of courses required for the degree. Faculty should make this decision in advance and should make the decision based on what would be most useful to improve the program.

When a capstone course is used for PLO assessment, generally students enrolled in the capstone course are identified as the population for PLO assessment.

What questions should be asked when analyzing the results?

Here are a few questions that might serve as conversation starters:

- Was overall student performance acceptable?
- What proportion of the students who earn the degree or certificate do not have the expected skills?
- How does this data compare to previous years?
- Are there any patterns in success rates between PLOs?
- Do some PLOs have higher success rates than others? Why?
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

What are some possible outcomes of the dialogue in Step 4?

After reviewing the results of the PLO assessments and identifying areas of strength and weakness, faculty will identify potential ways to support and improve student achievement in the program. This may include changes in pedagogy or curriculum, updates in materials or equipment, or additional staffing to support the program.

- Faculty question the importance or relevance of a PLO. If this is the case, faculty may decide to review and modify the program requirements, or review and revise course content for some of the major courses.
- Faculty conclude that there is a class missing from the curriculum. If that is the case, faculty might develop a new course for the program.
- Faculty are not getting useful results from their assessments. If that is the case, faculty should consider developing a capstone course whose primary purpose is authentic assessment of PLOs.
- Faculty conclude that their assessment of PLOs has missed a significant number of students participating in the program. If that is the case, the assessment method may need to be modified on the *PLOs Form*.
- Faculty identify resources needed to improve student success in the program, for example up-to-date technology.   If this is the case, identify that resource in the Program Review, and tie that into the Annual Area Plan.
- Faculty discover that they have different interpretations about what the PLO means. If this is the case, faculty should dialogue until an agreement is reached.
- One of the PLOs is not assessing the intended skill. If this is the case, rewrite the PLO statement.
- Faculty realize that more emphasis is needed on topic X in course Y. If this is the case, faculty agree to modify the presentation of the curriculum.
- Faculty realize that topic X is never actually taught. If this is the case, faculty should agree where topic X will be taught.
- Faculty are confused about what the assessment results mean. If this is the case, contact the Office of Research and Planning for training on how to interpret the results.
- Faculty discover that the rubric is being interpreted or applied differently from one instructor to another. If this is the case, faculty should schedule a norming session. (See Appendix F for information about norming rubrics.)

How is Step 4 Documented?

Step 4 is documented by the completion and submission of the Program Review Form as part of the Program Review Process that programs complete every two years. The Program Review Form can be accessed at http://www.shastacollege.edu/cms.aspx?id=3383

Step 5: Apply the results to improve outcomes and then assess the effectiveness of these improvements

Implement the changes and plans for improvement identified in Step 4 and/or assess the effectiveness of any previous improvements. Document the appropriate findings in Annual Area Plans and Program Reviews.

Chapter 5 -
The General Education Learning Outcomes Assessment Cycle

What is a General Education Learning Outcome?

A General Education Learning Outcome (GELO) is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of a course in one of the General Education Areas for Shasta College. The goal of general education at Shasta College is to develop a more well-rounded individual with a broad understanding of the physical universe, people as individuals and as members of society, artistic and cultural expression, written composition, oral communication, analytical thinking, multicultural environments, and perspectives of people from other cultures and backgrounds.

Faculty have the sole responsibility to develop, review, or revise GELOs. However, because GELOs are not specific to one course any revisions must be approved by the General Education Committee and must meet the following four criteria. To evaluate the effectiveness of a GELO statement use the Rubric on Evaluating Learning Outcomes in Appendix B.

5. A GELO states the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of the course.
6. A GELO is expressed using active verbs.
7. A GELO is stated in terms that make it measurable.
8. A GELO supports one of the Institutional Student Learning Outcomes.

What is a General Education Learning Outcome Assessment?

A GELO assessment identifies how students will be evaluated to determine whether or not successful completion of the learning outcome has been achieved.

A GELO assessment meets the following four criteria and must be developed and approved by the faculty teaching the same course in a GE Area (see the list of GE areas listed below). To evaluate the effectiveness of a GELO assessment use the Rubric for Evaluating Learning Outcome Methods of Assessment in Appendix C.

1. Successful completion of the assessment is not based on the final course grade.
2. The assessment clearly identifies the criteria for student success.
3. The assessment clearly identifies how and when the assessment will be administered.
4. The assessment is authentic.

What are the General Education Areas for Shasta College?

Shasta College has six General Education Areas:

Area 1: Natural Science (NS)
Area 2: Social and Behavioral Sciences (SB)
Area 3: Humanities (H)
Area 4: Language and Rationality
    a. English Composition (EC)
    b. Oral Communication (OC)

    c. Analytical Thinking (AT)
Area 5: Multicultural/Living Skills (MC/LS)
Area 6: Multicultural (MC)

What is the difference between a General Education Learning Outcome (GELO) and a Course-Level Student Learning Outcome (SLO)?

General Education Learning Outcomes are broad assessments of the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of any general education course in a specific general education area. Course-level Student Learning Outcomes are statements about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of a specific course.

Who develops or revises General Education Learning Outcomes?

Faculty have the sole responsibility to develop, review, or revise GELOs. However, because GELOs are not specific to one course any revisions must be approved by the General Education Committee.

Where are General Education Learning Outcomes Documented?

The GELOs can be accessed from the SLO website at http://shastacollege.edu/cms.aspx?id=14898

Should General Education Learning Outcomes be included on the Syllabus?

GELOs do not need to be included on the syllabus. However, Course-Level SLOs must be included on the syllabus.

The **General Education Learning Outcomes Assessment Cycle** has five steps:

1. Select one or more of the General Education Student Learning Outcomes (GELOs) to be assessed in your general education course. <u>Note:</u> All faculty teaching the same course must assess the same GELO for the data to be comparable and meaningful.
2. Develop, review, or revise an assessment method for the selected GELO
3. Assess the GELO(s)
4. Analyze the assessment results
5. Apply results to improve instruction and learning

       Repeat, repeat, repeat…

Following is a description of each step of the Assessment Cycle.

Step 1: Select one or more of the General Education Learning Outcomes (GELOs) to be assessed in your general education course

Faculty who teach the same course in a GE area jointly pick one of the GELOs listed below and make a commitment to assess it. For example, the instructors of BIOL 1 might jointly decide that GELO NS 1 will be assessed in BIOL 1.

<u>Helpful Hint:</u> If a Course-Level SLO will simultaneously assess the GELO then it is considered to be an embedded assessment. In other words, a course-level SLO will do "double duty" as an SLO and as a GELO. Consider the possibility of looking at a current course SLO(s) to determine if it also measures any of the GELOs. If so, faculty may want to choose the GELO that would be simultaneously assessed with a course SLO.

If a current course SLO <u>does not</u> measure any of the GELOs then the faculty who teach that course may want to write a course SLO that will also measure a GELO. In this case, faculty may choose to change the course SLO to one that will assess a GELO and only do one assessment or faculty may choose to continue to assess the course SLO and also assess a GELO.

Shasta College General Education Learning Outcomes (GELOs)

Area 1: Natural Science (NS)

GELO NS 1: Students will be able to use the scientific method to conduct basic experiments, collect, analyze, and evaluate data in a lab setting.
> OR

GELO NS 2: Students will be able to use scientific inquiry skills related to hypothesis, prediction, assumption, interpretation and evaluation.

Area 2: Social and Behavioral Science (SB)

GELO SB 1: Students will describe, explain, compare, and critique methods of inquiry used by the social and behavioral sciences.
> OR

GELO SB 2: Students will apply concepts from the social sciences in order to analyze, evaluate, classify, and explain human behavior.
> OR

GELO SB 3: Students will be able to identify and discuss how societies and social subgroups operate.

Area 3: Humanities (H)

GELO H 1: Students will express verbally and in writing examples of how peoples of different times and cultures relate to their environments through individual artistic expression and shared cultural traditions.
> OR

GELO H 2: Students will critically assess and discuss examples of artworks and cultural artifacts utilizing qualitative, contextual criteria.
> OR

GELO H 3: Students will describe, explain, discuss, evaluate, compare and contrast, theories that philosophers have used to understand the nature of reasoning, reality and value.

Area 4: Language and Rationality

4A: English Composition (EC)

GELO EC 1: Students will be able to write clear, logically organized essays using expository and argumentative modes and applying conventions of documentation when appropriate.

Area 4B: Oral Communication (OC)

GELO OC 1: Students will be able to identify and discuss the role oral communication plays in academic, social, and professional endeavors.
    OR
GELO OC 2: Students will demonstrate oral competency by constructing messages appropriate to particular communication situations covered in their particular courses.

Area 4 C: Analytical Thinking (AT)

GELO AT 1: Students will be able to apply logical reasoning to collect and critically evaluate information.
    OR
GELO AT 2: Students will be able to construct a formal argument complete with support and reach a logical conclusion.
    OR
GELO AT 3: Students will be able to apply logical reasoning to solve problems.

Area 5: Multicultural (MC)/ Living Skills (LS)

GELO MC 1: Students will compare and contrast perspectives of various cultural groups as defined by religion, ethnicity, race, gender, class or other important social categories.

GELO LS 1: Students will be able to identify "at risk" patterns of physical or academic or social or emotional or financial behavior and apply their knowledge and skills to assess these patterns and make recommendations for altering them.
    OR
GELO LS 2: Students will develop the criteria for personal or professional success in a given area and then create a specific action plan that targets the criteria—along with a timeline for accountability and evaluation.

Area 6: Multicultural (MC)

GELO MC 1: Students will compare and contrast perspectives of various cultural groups as defined by religion, ethnicity, race, gender, class or other important social categories.

Step 2: Develop an Assessment Method for the selected General Education Learning Outcome

There are many ways to assess GELOs. Examples include essays, surveys, case studies, portfolios, student projects, skills demonstrations, selected exam questions or surveys. Priority should be given to authentic assessment methods described in Appendix E. All faculty in a General Education Area should use the same grading rubric for the GELO assessment and all sections of the same course should use the same assessment to allow for peer collaboration and meaningful discussion of teaching and learning. Note that there is a difference between the assessment and a rubric. In order for the data to be meaningful, it is necessary that every class use the same rubric (see Appendix F). However, the assessment may be different. For example, students may be assessed on GELO NS 1 with an essay question in PHSC 1, a word problem in CHEM 6 and a presentation in BIOL 1. Even though three different assessment types are being used, the rubric to guide grading of the assessments is the same.

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

- 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 be available to students 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?

Where are the rubrics for the General Education Areas?

The rubrics can be accessed on the General Education Learning Outcomes page on the SLO website at http://shastacollege.edu/cms.aspx?id=14898

How is an assessment method for a General Education Area revised?

Faculty who teach the same course in a GE Area will jointly revise the assessment method and complete a *GE Learning Outcomes Form*. The revised form is submitted to the Office of Academic Affairs for inclusion on Docushare. The form can be accessed at http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-675

How is the rubric for a General Education Area assessment revised?

Faculty who teach in the same GE Area will jointly revise the assessment rubric and submit the new assessment rubric to the SLO Coordinator(s) to be uploaded to the General Education Learning Outcomes page of the SLO website.

Step 3: Assess the General Education Learning Outcomes

Before assessing the GELOs for a course, faculty who teach the course should review the *General Education Learning Outcomes Form* on Docushare as a reminder of the assessment method described on the form. This assessment method is used in every section of the course. It is helpful if faculty dialogue early in the semester about the assessment. Additionally, faculty should review the GE assessment rubric and be prepared to evaluate the assessment with the rubric jointly devised by faculty from each GE area.
The *General Education Learning Outcomes Form* for each course can be accessed at
http://docushare.shastacollege.edu/dscgi/ds.py/View/Collection-668
The rubrics for each General Education Area can be accessed at http://shastacollege.edu/cms.aspx?id=14898

What if a course falls into more than one General Education area?

It is necessary that <u>at least one</u> GELO from each area that a course is in be assessed.

If a General Education area has more than one GELO, which one should be assessed?

Faculty who teach the same course in a GE Area will decide which GELO to assess in that course. The same GELO should be assessed in each section of the course. A GELO should be assessed several times in a row to gain meaningful insight from the GELO Assessment Cycle before a different GELO is assessed. Assessment works best when it is ongoing and not episodic.

Should ALL or SOME students be assessed?

Since GELOs are statements about the knowledge, skills, attitudes and abilities a student is expected to have *upon successful completion of the course*, most faculty will report assessment results only for students who successfully pass the course. This can be accomplished by assessing all students, but waiting to report the assessment results until after final grades have been assigned and only reporting results for students who passed the class.   On the other hand, some faculty may find more value in reporting assessment results for all students, giving a wider picture of student success and failure. This should be determined in advance so every faculty teaching a course is assessing the same population of students.

In courses that enroll a large number of students, faculty 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.

When are assessment results due?

Assessment results for a course are due no later than the due date for the final course grade.

How are assessment results submitted?

Assessment results are submitted on the *General Education Learning Outcomes Reporting Form*. The form can be accessed at http://shastacollege.edu/SLOforms/

Step 4: Analyze the assessment results

This step is the heart of the Assessment Cycle. This is the step that provides faculty with the opportunity to dialogue on effective teaching practices. The goal is energetic, dynamic, positive, constructive and supportive conversations between faculty about how to improve student learning.

Step 4 begins when faculty meet to discuss and interpret the assessment results for each GE area during the Fall Flex Day. The assessment results are distributed by the Office of Research and Planning. Faculty who teach courses in each GE area will discuss the results of the assessment and reflect on the strengths and weaknesses of the GELO assessment cycle. A designated faculty member will then report the conclusions in the *Annual GELO Summary Report Form* which can be found at http://shastacollege.edu/SLOforms/

Who should analyze the results?

Faculty have the sole responsibility to analyze the GELO assessment results. Preferably all faculty who teach a course in a GE Area will participate in the analysis of the GELO data for that course. At a minimum, all faculty who teach in a GE area will be invited to participate.

What questions should be asked when analyzing the results?

Here are a few questions that might serve as conversation starters:

- Was overall student performance acceptable?
- Are there concepts with which many students have difficulty?
- How much variation was there in 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?
- 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?
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?
- Are the results similar across the different courses in the GE area?

What are some possible outcomes of the dialogue in Step 4?

- Faculty dialogue about different teaching strategies and get ideas about new things to try next semester.
- Faculty identify issues which may be interfering with student success on the GELO that are not necessarily related to presentation of the material or course content. For example, faculty may decide to review the prerequisite for the course, or cut scores for placement tests. Or faculty may decide to refer students to workshops to help with time management or study skills.
- Faculty realize that the assessment method, including timing, is different between instructors. If this is the case, faculty should agree on the assessment method and on its timing.
- Faculty discover that they have different interpretations about what the GELO means. If this is the case, faculty should dialogue until an agreement is reached.
- Faculty discover that they are getting a wide variety of student responses indicating that the GELO assessment is ambiguous. If this is the case, faculty should revise the GELO assessment method to make the assessment results more meaningful.
- Faculty agree that they have thoroughly explored effective strategies to improve student learning on a particular GELO. If this is the case, faculty should begin to assess a new GELO.
- Faculty are confused about what the assessment results mean. If this is the case, contact the Office of Research and Planning for training on how to interpret the results.
- Faculty discover that the rubric is being interpreted or applied differently from one instructor to another. If this is the case, faculty should schedule a norming session. (See Appendix F for information about norming rubrics.)

How is the completion of Step 4 documented?

After faculty have met to discuss assessment results and made plans for improvement, a faculty member should be designated to complete the *Annual GELO Summary Report Form* for the course. This form must be submitted by the third Monday in September. The form can be accessed at http://shastacollege.edu/SLOforms/

Step 5: Apply the results to improve outcomes and then assess the effectiveness of these improvements

Implement the changes and plans for improvement identified in Step 4 and/or assess the effectiveness of any previous improvements. Document the appropriate findings in Annual Area Plans and Program Reviews.

Chapter 6 -
The Institutional Student Learning Outcomes Assessment Cycle

What are Institutional Student Learning Outcomes?

Institutional Student Learning Outcomes are statements about the knowledge, skills, attitudes and abilities a student is expected to develop as a result of their total experience with any aspect of the college, including courses, programs, and student services. ISLOs help to clarify our mission to ourselves and to our students.

What is the purpose of Institutional Student Learning Outcomes?

ISLOs are designed to help guide the institution in the development of SLOs, PLOs, GELOs and student services, and to help guide planning at the college. ISLOs clarify our mission to ourselves and to our students.

How are Institutional Student Learning Outcomes different from other types of Learning Outcomes?

ISLOs are the collective expression of the learning experiences the college offers to students as a result of their total experience with any aspect of the college, including courses, programs and student services. Other types of Learning Outcomes focus on the particular skills, knowledge, and attitudes that students learn in specific courses or activities.

How are Institutional Student Learning Outcomes different from General Education Learning Outcomes?

There may seem to be considerable overlap between the General Education learning outcomes and the Institutional Student Learning Outcomes. This overlap is deliberate. GE outcomes apply only to students who graduate from the college with an AA or AS degree and who thus must meet the GE requirements. In contrast, ISLOs apply many of the same educational outcomes to all students, whether enrolled in transfer or occupational programs, noncredit courses, or personal enrichment classes.

How can my courses meet all of the Institutional Student Learning Outcomes?

The ISLOs represent the overall educational experiences of students at Shasta College. Because ISLOs are the most universal educational outcome of the College a single course and/or program cannot and is not expected to meet all of the ISLOs. However, each program must contribute toward at least one ISLO.

The **Institutional Student Learning Outcomes Assessment Cycle** has five steps:

1. Develop, review, or revise Institutional Student Learning Outcomes (SLOs)
2. Develop, review, or revise an appropriate assessment method for each ISLO
3. Assess the ISLOs
4. Analyze the assessment results
5. Apply results to improve instruction and learning

Repeat, repeat, repeat…

Following is a description of each step of the Assessment Cycle

Step 1: Revise Institutional Student Learning Outcomes

Who revises Institutional Student Learning Outcomes?

The Academic Senate has the primary responsibility to develop, review, or revise ISLOs. The ISLOs must be approved by the Board of Trustees. The review of ISLOs will coincide with the review of the Mission Statement.

Which employees at Shasta College should be active participants in developing Institutional Student Learning Outcomes?

All employees should be involved in creating an environment that leads to student success, and ISLOs are a way for the college to assess whether we have been successful. Therefore, all employees should be active participants.

Where are Institutional Student Learning Outcomes documented?

ISLOs are on Docushare and can be accessed on the SLO website at http://shastacollege.edu/slo/

Step 2: Develop an Assessment Method for an Institutional Student Learning Outcome

Unlike SLOs, PLOs and GELOs, faculty, staff and administration may be involved in assessing ISLOs. Since ISLOs are part of the mission of Shasta College anyone can identify opportunities for institutional improvement and growth. In some cases ISLOs are assessed directly through the assessment of SLOs, GELOs and PLOs. Other assessments will vary widely and may include direct or indirect assessments. Examples include focus groups, surveys, case studies, portfolios, student projects, and skills demonstrations.

An effective method of assessment will include answers to the following questions:

- "When will students complete the assessment?"
- "What group of students will be assessed?
- "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?"

An effective method of assessment will clearly identify how students will be evaluated to determine whether or not successful completion of the learning outcome has been achieved.

An ISLO assessment meets the following four criteria. To evaluate the effectiveness of an ISLO assessment use the Rubric for Evaluating Learning Outcome Methods of Assessment in Appendix C.

1. Successful completion of the assessment is not based on the final course grade.
2. The assessment clearly identifies the criteria for student success.
3. The assessment clearly identifies how and when the assessment will be administered.

4. The assessment is authentic.

Can the assessment method be revised?

The assessment method should be revised any time that it is discovered that the assessment method is not an effective measurement of an ISLO.

Step 3: Assess the Institutional Student Learning Outcomes

When are Institutional Student Learning Outcomes assessed?

ISLOs at Shasta College are continuously assessed. In addition to the continuous assessment of ISLOs, Shasta College commits to an annual campus-wide assessment of specific ISLOs. The schedule for the campus-wide focus on specific ISLOs can be accessed on the SLO website at http://shastacollege.edu/slo/

Plan ahead before gathering assessment data. Work out details in advance so that the assessment will be a deliberate process of gaining meaningful results. Some questions to address include:

- When in the semester will the assessment occur?
- Who will administer the assessment?
- Who exactly will complete the assessment? What materials and resources will the students have while completing the assessment?
- How much time will the students have to complete the assessment?
- What instructions or information will the students get about this assessment?
- Should student participation in the assessment be optional or required?
- What are other special considerations for this particular assessment?

Step 4: Analyze the assessment results

This step is the heart of the Assessment Cycle. This is the step that provides Shasta College employees with the opportunity to participate in dialogue about effective institutional practices. The goal is energetic, dynamic conversations about how to improve student success.

What questions should be asked when analyzing the results?

Here are a few questions that might serve as conversation starters:

- Was overall student performance acceptable or below the target level?
- How much variation was there between the lowest and highest student performance?
- How does this data compare to previous semesters? (when applicable)
- In retrospect, does the assessment method still make sense, or should it somehow be modified to get more useful information the next time around?

Step 5: Apply the results to improve outcomes and then assess the effectiveness of these improvements

Implement the changes and plans for improvement identified in Step 4 and/or assess the effectiveness of any previous improvements. Document the appropriate findings in Annual Area Plans and Program Reviews.

Part III –
The Student Learning Outcomes Committee

The Student Learning Outcomes (SLO) Committee is a standing subcommittee of the Academic Senate. The Academic Senate, acting through the Executive Committee, relies primarily upon the recommendations of the SLO Committee for matters concerning Learning Outcomes. The Academic Senate will ordinarily accept the SLO Committee's recommendations, except when exceptional circumstances and compelling reasons exist. All actions of the SLO Committee requiring action by the Board of Trustees must be approved by the Executive Committee before transmission by the Academic Senate President, or designee, to the board.

The purpose of the SLO Committee is to oversee the Learning Outcomes processes related to academic and professional matters addressed by the Academic Senate. Some typical activities of the SLO Committee include:

- The SLO Committee provides guidelines and standards for the implementation of the Learning Outcomes Assessment Cycle for courses, degrees, certificates, General Education areas, and instructional support services.

- The SLO Committee creates and maintains a timeline for the achievement of Learning Outcome tasks and regularly assesses progress within the timeline.

- The SLO Committee provides resources in support of the Learning Outcomes processes.

- The SLO Committee assesses needs for additional campus-wide resources in support of the Learning Outcomes processes, making recommendations and requests, as appropriate.

- The SLO Committee initiates campus-wide communication on the SLO process, including dissemination of information as well as interactive dialogue.

- The SLO Committee researches and makes recommendations on the inclusion of Learning Outcomes into institutional decision-making processes.

- The SLO Committee develops recommendations for promoting student awareness of the goals and purposes of their courses and degrees or certificates.

- The SLO Committee reviews SLOs, PLOs, and their assessments to determine whether (1) the SLO or PLO statements meet the four criteria for an SLO or PLO, (2) that the assessment is not based on the final course grade, (3) the assessment is authentic when possible, and (4) the SLO or PLO and its assessment is written clearly and with enough detail that other faculty will be able to understand the SLO and its assessment. In the event the SLO Committee finds the SLOs or PLOs lacking, the SLO Committee will provide training to help faculty write well defined SLOs and SLOs and assessments.

- The SLO Committee will work jointly with the Director of Research and Planning to develop PLOs for the AA Degree in University Studies and the AS Degree in General Studies (this excludes GELOs which are developed by the GE Committee).   The SLO Committee will analyze the assessment results from these PLOs and discuss strategies to improve the success rates.

Part IV -
Learning Outcomes in Integrated Planning

Learning Outcomes Assessment is an important part of the integrated planning process at Shasta College.

Annually, each area (including academic disciplines and student service units) will complete an Annual Area Plan. When completing the Annual Area Plan, faculty review the most recent assessment results for SLOs in order to develop Initiatives that will support better student learning and/or Institutional Goals and Objectives. These Initiatives are prioritized for eventual funding decisions, or are summarized if no additional resources are required.

Every two years, the Program Review portion of the Annual Area Plan is completed for the Foundational Skills Program and for each degree and certificate.   The purpose of the Program Review process is to tie findings from PLO assessment to budget allocation and institutional planning. Faculty use assessment data to analyze whether students are meeting the PLOs. After reviewing the assessment data, faculty develop Initiatives for improving student success.   Any resources needed are delineated on the *Program Review* Form and are prioritized through the same process used for Annual Area Plan Initiatives.

The College Council reviews all of the prioritized Initiatives from the three segments of the College (Instructional, Student Services and Administrative Services) and prepares the Prioritized District-wide Annual Action Plan. From this document, resource allocations are made for the following fiscal year. Prioritization at all levels uses the Resource Allocation Rubric, which includes a consideration of learning outcome assessment results.

Appendix A – ACCJC Rubric for Evaluating the SLO Process

Appendix B – Rubric for Evaluating Learning Outcomes

Appendix C – Rubric for Evaluating Learning Outcome Methods of Assessment

Appendix D – Active Verbs

Appendix E – Authentic Assessment

Appendix F – Resources for Creating Rubrics

Appendix G – Evaluating the Student Learning Outcomes Process for Sustainable Continuous
             Quality Improvement

Appendix H – Definitions

Appendix I – Memorandum of Understanding regarding FLEX Credit

Appendix A –
ACCJC Rubric for Evaluating the SLO Process

Accrediting Commission for Community and Junior Colleges
Western Association of Schools and Colleges

Rubric for Evaluating Institutional Effectiveness – Part III: Student Learning Outcomes

Levels of Implementation	Characteristics of Institutional Effectiveness in Student Learning Outcomes Updated May 2011
Awareness	• There is preliminary, investigative dialogue about student learning outcomes. • There is recognition of existing practices such as course objectives and how they relate to student learning outcomes. • There is exploration of models, definitions, and issues taking place by a few people. • Pilot projects and efforts may be in progress. • The college has discussed whether to define student learning outcomes at the level of some courses or programs or degrees; where to begin.
Development	• College has established an institutional framework for definition of student learning outcomes (where to start), how to extend, and timeline. • College has established authentic assessment strategies for assessing student learning outcomes as appropriate to intended course, program, and degree learning outcomes. • Existing organizational structures (e.g. Senate, Curriculum Committee) are supporting strategies for student learning outcomes definition and assessment. • Leadership groups (e.g. Academic Senate and administration), have accepted responsibility for student learning outcomes implementation. • Appropriate resources are being allocated to support student learning outcomes and assessment. • Faculty and staff are fully engaged in student learning outcomes development.
Proficiency	• Student learning outcomes and authentic assessment are in place for courses, programs and degrees. • There is widespread institutional dialogue about the results *of assessment and identification of gaps.* • Decision-making includes dialogue on the results of assessment and is purposefully directed toward *aligning institution-wide practices to support and improve* student learning. • Appropriate resources continue to be allocated and fine-tuned. • Comprehensive assessment reports exist and are completed *and updated* on a regular basis. • Course student learning outcomes are aligned with degree student learning outcomes. • Students demonstrate awareness of goals and purposes of courses and programs in which they are enrolled.
Sustainable Continuous Quality Improvement	• Student learning outcomes and assessment are ongoing, systematic and used for continuous quality improvement. • Dialogue about student learning is ongoing, pervasive and robust. • *Evaluation of student learning outcomes processes.* • Evaluation and fine-tuning of organizational structures to support student learning is ongoing. • Student learning improvement is a visible priority in all practices and structures across the college. • Learning outcomes are specifically linked to program reviews.

sc: 5/25/2011

Appendix B –
Rubric for Evaluating Learning Outcomes

Rubric for Evaluating Learning Outcomes

Criteria	Meets	Does Not Meet
1 – Learning Outcome states the knowledge, skills, attitudes or abilities a student is expected to have upon successful completion of the course.	Learning outcome clearly states what the student will be able to do upon successful completion of the outcome Is stated as a single outcome	Does not clearly state what the student will be able to do upon completion Combines multiple outcomes Stated in terms of what the instructor will do rather than what the student will do
2 – Learning Outcome is expressed using active verbs.	Uses active verbs (Refer to Appendix D in the Learning Outcomes Handbook)	Does not use active verbs (Refer to Appendix D in the Learning Outcomes Handbook)
3 – Learning Outcome is stated in terms that make it measurable.	Criteria for successful completion are clearly identified and leave no room for confusion or varying interpretations among faculty or staff.	Criteria for successful completion are vague and ambiguous leaving room for confusion and varying interpretations among faculty or staff.
4 – Learning Outcome is aligned with one of the Institutional Student Learning Outcomes	Linked to one ISLO based on the specific outcome and not on the overall course content	Linked to more than one ISLO Not linked to any ISLO

Appendix C –
Rubric for Evaluating Learning Outcome Methods of Assessment

Rubric for Evaluating Learning Outcome Methods of Assessment

Criteria	Meets	Does Not Meet
1 – Successful completion of the assessment is not based on the final course grade.	Successful completion of the learning outcome is based on the student's performance on the specified learning outcome	Successful completion of the learning outcome is based on the student's final course grade
2. The assessment clearly identifies how and when the assessment will be administered.	Means (how and when) for administering the learning outcome are clearly identified and leave no room for confusion and varying interpretations among faculty or staff	Means (how and when) for administering the learning outcome are vague and ambiguous leaving room for confusion and varying interpretations among faculty or staff
3. The assessment is clearly written and identifies the criteria for student success.	Means for evaluating successful completion of the outcome are clearly stated. A rubric (rating tool) identifying the criteria for student success has been developed (See Appendix F in the Learning Outcomes Handbook)	Means for evaluating successful completion of the outcome are vague and ambiguous, or missing. A rubric (rating tool) identifying criteria for student success has not been developed (See Appendix F in the Learning Outcomes Handbook)
4. The assessment is authentic.	Assessment tool requires students to *use* the acquired knowledge and skills for the specified learning outcome to a real world setting (See Appendix E in the Learning Outcomes Handbook)	Assessment tool only requires students to know the content for the specified learning outcome (See Appendix E in the Learning Outcomes Handbook)

Appendix D –
Active Verbs

Suggested Verbs to Use in Each Level of Thinking Skills

Below are active verbs that can be used when creating learning outcomes for a course or degree program.

Knowledge	Comprehension	Application
Count	Associate	Add
Define	Compute	Apply
Describe	Convert	Calculate
Draw	Defend	Change
Identify	Discuss	Classify
Labels	Distinguish	Complete
List	Estimate	Compute
Match	Explain	Demonstrate
Name	Extend	Discover
Outlines	Extrapolate	Divide
Point	Generalize	Examine
Quote	Give examples	Graph
Read	Infer	Interpolate
Recall	Paraphrase	Manipulate
Recite	Predict	Modify
Recognize	Rewrite	Operate
Record	Summarize	Prepare
Repeat		Produce
Reproduces		Show
Selects		Solve
State		Subtract
Write		Translate
		Use

Analysis	Synthesis		Evaluation
Analyze	Categorize	Reconstruct	Appraise
Arrange	Combine	Related	Assess
Breakdown	Compile	Reorganize	Compare
Combine	Compose	Revise	Conclude
Design	Create	Rewrite	Contrast
Detect	Drive	Specify	Criticize
Develop	Design	Summarize	Critique
Diagram	Devise	Transform	Determine
Differentiate	Explain		Grade
Discriminate	Generate		Interpret
Illustrate	Group		Judge
Infer	Integrate		Justify
Outline	Modify		Measure
Point out	Order		Rank
Relate	Organize		Rate
Select	Plan		Support
Separate	Prescribe		Test
Subdivide	Propose		
Utilize	Rearrange		

Source/Reference: These steps were derived from information collected at various conferences by Dr. Cia Verschelden, the original source is unknown. This information was original posted on the Office of Assessment Web site in the summer of 2005. (**www.k-state.edu/assessment**)

Appendix E -
Authentic Assessment

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 is 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

Appendix F -
Resources for Creating Rubrics

A rubric lists a specific set of criteria that will be used when scoring student work. A rubric also articulates levels of quality for each of the criteria. Rubrics can be holistic or analytic, general or task specific. The following document explains the difference between the different types of rubrics and gives suggestions for choosing which type of rubric to use for different types of assignments. **The Basics of Rubrics by Penn State** **http://www.schreyerinstitute.psu.edu/pdf/rubricbasics.pdf**

The Shasta College Student Learning Outcomes Committee recommends the use of rubrics for SLOs, GELOs, PLOs and ISLOs assessments. Rubrics are a vital part of the assessment process. Rubrics provide faculty who teach different sections of a course the opportunity to evaluate student work using the same set of criteria. This leads to more meaningful conversations in Step 4 of the Assessment Cycle.

A rubric has been developed for each of the General Education Learning Outcomes (GELOs). All faculty who teach a course in a GE Area MUST use the rubric developed for that area. For example, faculty who teach courses that are in GE Area 1 (Natural Science) MUST use the rubric that has been developed for the GELO for GE Area 1. For more information about assessing GELOs see Chapter 5.

Other advantages to using a rubric include:

- Rubrics make expectations clear to students.
- Rubrics allow students to be better judges of the quality of their own work, encouraging better work.
- Rubrics are more descriptive of the quality of work than a single grade. Students can see specifically areas for improvement.
- In some cases, but not always, rubrics may reduce the amount of time faculty spend evaluating work.

Here are some resources to guide faculty through the process of creating a rubric:

1. Creating a Rubric: Tutorial, College of Public Health at USF
   http://health.usf.edu/publichealth/eta/Rubric_Tutorial/default.htm

2. **How to Create Rubrics,** University of Connecticut
   http://www.assessment.uconn.edu/docs/How_to_Create_Rubrics.pdf

3. The Do-It-Yourself Rubric, National Education Association (NEA)
   http://www.nea.org/home/34451.htm

Once a rubric has been created, faculty should meet to practice scoring student work using the rubric. This is called "norming" the rubric. In a norming session, faculty use the common rubric to score the same piece of student work. Then faculty compare and discuss the score they have assigned the work. The goal is that the student receives the same score regardless of who is judging their work. It is also useful to have norming sessions after the rubric has been in use for awhile. This gives faculty an opportunity to review criteria for scoring.

Appendix G –
Evaluating the Learning Outcomes Process for Sustainable Continuous Quality Improvement

The SLO Committee and the Director of Research and Planning jointly coordinate the evaluation of the learning outcomes processes.

This evaluation includes:

- An annual survey to determine whether faculty and administrators find the learning outcomes process to be understandable, and useful and to get input about ways to improve the process.

- Periodic focus groups to discuss ways to improve the learning outcomes process

- An annual review of a sample of Program Review Forms and Annual Area Plans to ensure that dialogue about student learning is ongoing, pervasive and robust, and that learning outcomes assessment is tied to integrated planning.

Appendix H—
Definitions

Assessment of Learning. Learning assessment refers to a process where methods are used to generate and collect data for evaluation of courses and programs to improve educational quality and student learning. This refers to any method used to gather evidence and evaluate quality and may include both quantitative and qualitative data in instruction or student services.

Authentic Assessment. Authentic assessment simulates a real world experience by evaluating the student's ability to apply critical thinking and knowledge or to perform tasks that may approximate those found in the work place or other venues outside of the classroom setting.

Capstone Course. "The capstone course is an opportunity for students to demonstrate that they have achieved the goals for learning established by their educational institution and major department. The course should be designed to assess cognitive, affective and psychomotor learning and to do so in a student-centered and student-directed manner which requires the command, analysis and synthesis of knowledge and skills." - Robert C. Moore

Closing the Loop. Closing the loop refers to the use of assessment results to improve student learning through collegial dialog informed by the results of student service or instructional learning outcome assessment. It is part of the continuous cycle of collecting assessment results, evaluating them, using the evaluations to identify actions that will improve student learning, implementing those actions, , evaluating the effectiveness of the improvements and then cycling back to collecting assessment results.

Course-Level Student Learning Outcome. A Course-Level Student Learning Outcome (SLO) is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of the course. An SLO starts with the phrase, "Upon successful completion of this course a student should be able to …"

Direct assessment. Direct assessments provide evidence of student knowledge, skills, or attitudes for the specific domain in question and actually measure student learning, not perceptions of learning or secondary evidence of learning, such as a degree or certificate. For instance, a math test directly measures a student's proficiency in math. In contrast, an employer's report about student abilities in math or a report on the number of math degrees awarded would be indirect data.

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 (i.e., common test questions, Classroom Assessment Techniques CATs, projects or writing assignments). Specific questions can be embedded on exams in classes across courses, departments, programs, or the institution. Embedded assessment can provide formative information for pedagogical improvement and student learning needs.

General Education Learning Outcomes. GELOs are the knowledge, skills, and abilities a student is expected to be able to demonstrate following a program of courses designed to provide the student with a common core of knowledge consistent with a liberally educated or literate citizen. These General Education courses are part of all degree programs.

Grades. Grades are the faculty evaluation of a student's performance in a class as a whole. Grades represent an overall assessment of student class work, which sometimes involves factors unrelated to specific outcomes or student knowledge, values or abilities. Final grades in a course cannot be used for SLO assessments.

Indirect assessment. Indirect assessments are sometimes called secondary data because they indirectly measure student performance. For instance, certificate or degree completion data provide indirect evidence of student learning but do not directly indicate what a student actually learned.

Institutional Student Learning Outcomes (ISLO). Institutional Student Learning Outcomes are the knowledge, skills, and abilities a student is expected to leave an institution with as a result of a student's total experience with any aspect of the college including courses, programs and student services.

Learning Outcome. A Learning Outcome is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of an academic activity. A Learning Outcome is expressed using active verbs and is stated in terms that make it measurable.

Learning Outcomes Assessment Cycle. The assessment cycle refers to the process called closing the loop and consists of five steps:

>   Step 1. Develop, review, or revise the Learning Outcome
>   Step 2. Develop, review or revise an assessment method for the Learning Outcome
>   Step 3. Assess the Learning Outcome
>   Step 4. Analyze the assessment results
>   Step 5. Apply the results to improve outcomes and then assess the effectiveness of these improvements

Library Student Learning Outcome. A Library Student Learning Outcome is a statement about what a student will think, know, feel or be able to do as a result of successfully using library services. An SLO starts with the phrase, "Upon successful library instruction or use of library resources or services, a student should be able to …"

Objectives. Objectives are small steps that lead toward a goal, for instance the discrete course content that faculty cover within a discipline.

Program. In Title 5 §55000(g), a "Program" is defined as a cohesive set of courses that result in a certificate or degree and basic skills.

Program Learning Outcomes. Each degree or certificate program must have a comprehensive list of Program Learning Outcomes (PLOs) describing the skills gained through successful completion of the program. Each Program Learning Outcome in the comprehensive list is a measurable statement about the knowledge, skills, attitudes, and abilities a student is expected to have upon successful completion of the requirements for the degree or certificate.

Rubric. A rubric is a set of criteria used to determine scoring for an assignment, performance, or product. Rubrics may be holistic, not based upon strict numerical values which provide general guidance. Other rubrics are analytical, assigning specific scoring point values for each criterion often as a matrix of primary traits on one axis and rating scales of performance on the other axis. A rubric can improve the consistency and accuracy of assessments conducted across multiple settings. Rubrics also offer students a clear guide of what is expected in each assignment/assessment.

Service Area Outcomes (SAO). Service Area Outcomes (SAOs) occur across campus and are designed to assess and improve institutional effectiveness. SAOs measure the extent to which the services within specific areas enhance a supportive learning environment and support the pathway to student success.

Student Learning Outcome (SLO). Student learning outcomes (SLOs) are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge, skills, attitudes and abilities that provide evidence that learning has occurred as a result of a course, program activity, or process. An SLO refers to an overarching outcome for a course, program, degree or certificate, or student services area (such as the library). SLOs describe a student's ability to synthesize many discreet skills using higher level thinking skills and to produce something that asks them to apply what they've learned. SLOs usually encompass a gathering together of smaller discrete objectives through analysis, evaluation and synthesis into more sophisticated skills and abilities.

Student Services Learning Outcome. A Student Services Learning Outcome (SSLO) is a statement about the knowledge, skills, attitudes and abilities a student is expected to have upon successful completion of a student services activity (e.g. counseling appointment, orientation, assessment, field trip). An SSLO starts with the phrase, "Upon successful completion of this activity a student should be able to …"

Appendix I—
Memorandum of Understanding regarding FLEX Credit

SHASTA COLLEGE
MEMORANDUM OF UNDERSTANDING
December 15, 2011

This memorandum of understanding is between the Shasta-Tehama-Trinity Joint Community College District (District) and the Shasta College Faculty Association (Association) for the 2011-2012 academic year.

Full-time faculty members are obligated to perform six hours of individual professional development annually as part of the Flex obligation. These hours can be fulfilled by attending workshops coordinated or sponsored by the *Invest in Our People* Committee and/or by participation in an approved individual professional development activity. These hours must be scheduled outside of regular working hours.

For the Spring semester 2012, one option for full-time faculty members is to use up to six hours of professional development time to complete the Student Learning Outcomes (SLOs) for all of their courses. The approved SLOs will be processed upon verification of up to six hours of individual flex credit using the individual flex credit form.
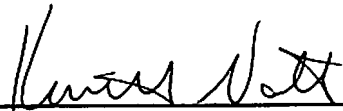
A full-time faculty member who chooses to participate in the SLO process as part of a departmental or existing Flex day activity is not restricted by this agreement if they wish to participate in other approved individual professional development activities. The individual flex requirement for full-time faculty is 6 hours for those who choose not to participate in SLOs.

For Spring semester 2012, in courses taught solely by a part-time faculty member, that faculty member will be compensated for two hours of flex credit for completion of the SLOs for the courses he/she teaches.

SIGNED and DATED:

_____ 2/3/12

Joe Wyse
District Superintendent/President

_____ 2/2/12

Ken Nolte, President
Faculty Association