



**EL CAMINO COLLEGE**

# **Learning Outcomes & Assessment Handbook**

*Creating and Sharing  
Evidence of Effective  
Teaching Practices*

Updated: 11.05.2014

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## **The El Camino College Mission**

El Camino College offers quality, comprehensive educational programs and services to ensure the educational success of students from our diverse community. Central to this mission is student learning, which is not restricted to interactions between students and instructors in a classroom. Instead, the entire campus works together to support student learning in all of our courses, programs and services.

### **Assessment of Learning Committee Mission Statement**

The Assessment of Learning Committee strives to improve student success by coordinating assessment planning, developing sustainable methodologies and procedures, providing ongoing training, and promoting authentic communication on campus and with the community.

Assessments of student learning offer the institution a vital measure of how effectively El Camino College is fulfilling its mission. Assessment results provide evidence upon which to base curricular, planning and budget decisions, which lead to greater student success. Administrators, faculty, and staff work together to support on-going authentic assessment of student learning outcomes in all of its courses, programs and services.

## **El Camino College's Guiding Principles for Student Learning Outcomes Assessment**

1. **For any course, program, or service, the personnel directly involved in its delivery are finally responsible for all aspects of its assessment cycles.**

While expected to consult with all stakeholders on campus, the responsible personnel are the best qualified to determine appropriate student learning outcomes, implement effective assessments, report results, and make recommendations for improvements. For each outcome, they are also best equipped to decide when each stage of the cycle is complete.

2. **Broad participation in assessment cycles by administrators, faculty, and staff is a shared responsibility.**

The more personnel that participate in the production and analysis of assessment results, the greater the likelihood that proposed changes will be implemented and sustained.

3. **Student learning outcomes are defined in various ways.**

Student learning outcomes vary tremendously among courses, programs and services; they may be cognitive, affective, or psychomotor. They change over time and are informed by a multitude of factors, including community needs, discipline standards, and previous assessment cycles.

4. **Assessments use various methods and may build upon existing assessments.**

Assessment techniques range widely in style and rigor. Whenever feasible, existing assessment instruments are modified based on results from previous assessments. If possible, new assessment processes replace old ones. Direct measures of student learning are preferred, although indirect measures are used, particularly in areas that indirectly support student learning.

5. **Curricular, planning and budget decisions are informed by assessment results.**

Assessment results provide evidence that allow administrators, faculty and staff to make wise planning and budget decisions. All curricular and program reviews are stronger when they incorporate assessment results in their reports. Faculty members who are responsible for curriculum are required to reflect on assessments and their results as part of periodic self-evaluation. Similarly, Program Review reports focus on SLO, PLO and SAO assessments so that changes can be integrated into planning procedure.

6. **Assessments are used to evaluate and improve student learning.**

Information gleaned from assessment cycles is used primarily to understand the factors affecting student learning and to improve instruction and services. Assessments of student learning outcomes are not used to undermine academic freedom.

7. **Resources are provided for assessment cycles.**

For some assessment cycles, existing resources suffice; for others, additional resources are needed. Administrators, working together with faculty and staff, find the means of conducting meaningful assessment cycles without compromising the quality of instruction, delivery of services or overburdening specific personnel.

## **El Camino College Institutional Learning Outcomes (ILOs)**

Students completing a course of study at El Camino College will achieve the following institutional learning outcomes:

### **ILO #1 – CRITICAL THINKING**

Students apply critical, creative and analytical skills to identify and solve problems, analyze information, synthesize and evaluate ideas, and transform existing ideas into new forms.

- Identify vital questions, problems, or issues and evaluate solutions.
- Analyze, compose, and assess the validity of an argument.
- Compute and analyze multiple representations of quantitative information, including graphical, formulaic, numerical, verbal, and visual.

### **ILO #2 – COMMUNICATION**

Students effectively communicate with and respond to varied audiences in written, spoken or signed, and artistic forms.

- Comprehend, analyze, and respond appropriately to oral, written, and visual information. Effectively communicate/express information through speaking, writing, visual, and other appropriate modes of communication/expression.
- Effectively communicate ideas and opinions to a varied audience, including peers, faculty, staff and community.
- Respond to audiences from different arenas either in written, spoken or signed, and artistic forms to express ideas and opinions.

### **ILO #3 – COMMUNITY AND PERSONAL DEVELOPMENT**

Students are productive and engaged members of society, demonstrating personal responsibility, and community and social awareness through their engagement in campus programs and services.

- Engage in on-campus programs and services that utilize campus resources and opportunities to foster community, civic, political, environmental, health and social awareness.
- Demonstrate personal responsibility by identifying, maintaining, and improving physical and mental health and by implementing and evaluating personal, academic, financial, and career goals.
- Seek feedback, analyze and evaluate one's own progress toward goals and be able to find applicable solutions to challenges impeding one's success.

### **ILO #4 – INFORMATION LITERACY**

Students determine an information need and use various media and formats to develop a research strategy and locate, evaluate, document, and use information to accomplish a specific purpose. Students demonstrate an understanding of the legal, social, and ethical aspects related to information use.

- Evaluate and choose credible sources for information.
- Understand when and how to give citations in the format appropriate for their field of study.
- Research data and draw conclusions based on an analysis of that data.

## **El Camino College General Education Outcomes (GEOs)**

### **El Camino College General Education Philosophy**

El Camino College (ECC) recognizes the need to provide a multidimensional, multicultural, and integrative general education curriculum, as the core of the associate degree. With this objective in mind, El Camino College pledges to develop and maintain a general education curriculum that promotes critical thinking and analytical skills, clear and precise expression, cultural and artistic sensitivity, personal growth, health, and self-understanding. General education curriculum will enhance appreciation and understanding of the scientific method and the relationships between science and other human activities. It will also develop an understanding of methods of inquiry regarding human behavior, foster an appreciation of how societies and social groups operate, and develop awareness of the ways people throughout the ages have responded to themselves and the world around them in artistic and cultural creations.

### **General Education Area Learning Outcomes Assessment**

The College will use Institutional Learning Outcomes (ILOs) to assess General Education (GE) areas. ILOs allow our institutional-level assessments to apply to all students, including those taking GE courses. This approach will give us results that are useful and actionable. Our ongoing ILO assessments will aggregate data around GE areas for analysis and possible actions.

\* \* \* \* \*

Every program at El Camino College has aligned course student learning outcomes (SLOs) with degree student learning outcomes (PLOs). All courses and program learning outcomes are aligned with institutional learning outcomes (ILOs). This alignment is a required component of program review and is documented in the ‘Assessment and SLO’ portion of the program review. As part of this, all general education courses are mapped to the College’s ILOs. We have an ILO assessment timeline and have assessed all ILOs.

The alignment matrices are entered into TracDat, which will allow the extraction of PLO and ILO assessment data from the course-level assessment reports. This assessment data will be aggregated by GE area, combined with other standalone ILO assessments happening on campus, and analyzed by faculty & staff for needed actions.

\* \* \* \* \*

Our current and proposed ILOs strongly correspond to GE areas. Our ILOs do cover all GE areas as outlined in ACCJC Standard II.A.3.a-c.

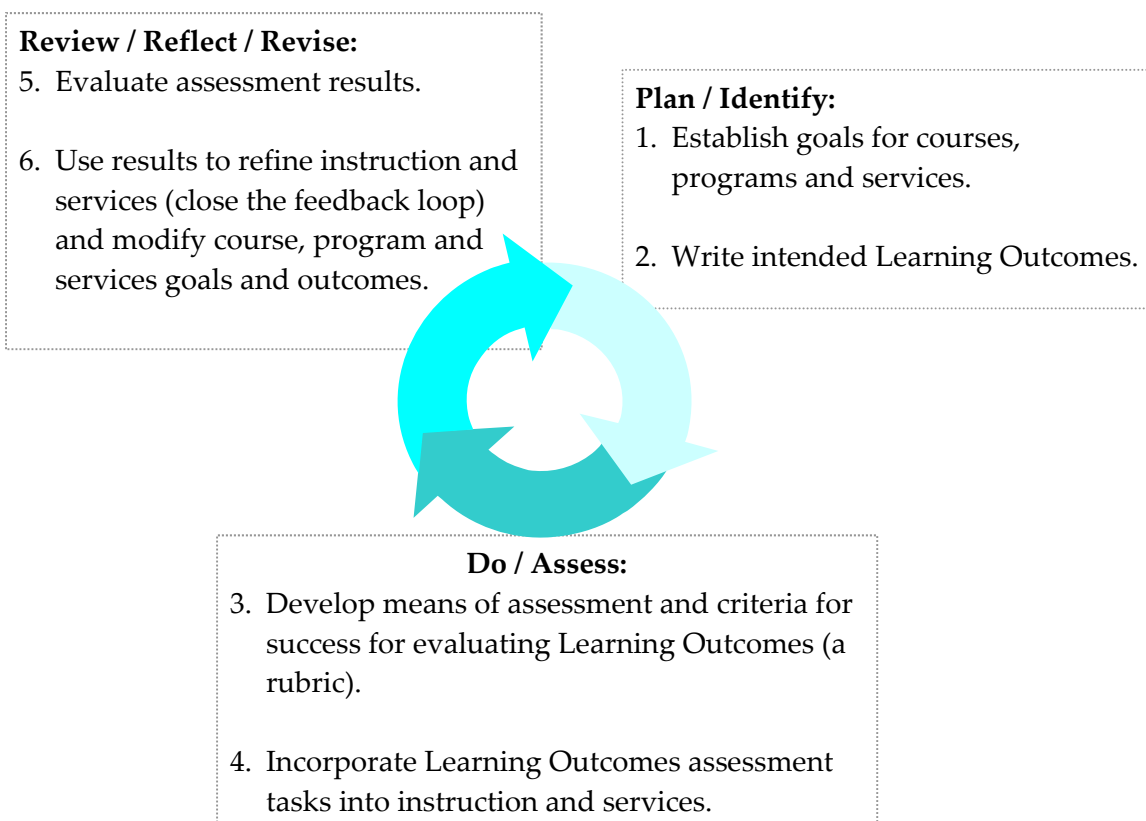
## The Assessment Cycle

A student learning outcome assessment cycle is a comprehensive process in which we:

- A. Identify a student learning outcome.
- B. Design an assessment instrument.
- C. Design and implement an assessment plan.
- D. Reflect on the results of the assessment and draw conclusions.
- E. Share the results and conclusions with the college community and invite review and comments.
- F. Implement action plan in response to data and recommended changes to improve student learning.
- G. Follow-up on action plan.

## The Assessment Cycle

**Plan / Identify – Do / Assess – Reflect / Review / Revise  
(Repeat)**



Using SLOs and assessment cycles is an approach to teaching with three cornerstone beliefs. The first is that “covering” material during a course does not necessarily **guarantee** that students learn it. Simple success and retention rates are no longer acceptable ways of measuring how successful our students are. Success is determined by students emerging from our courses and programs with integrated, higher learning skills that they can **demonstrate** to others. These demonstrations constitute evidence that they have truly learned. Another keystone of the theory is the belief that students perform better when they know exactly what is expected of them, including what they will be required to do and how it will be evaluated. What defines an A, B or C paper or project should be public knowledge. **Transparency** is the key to using SLOs successfully in the classroom. The final concept is **practice**. Before being evaluated on an SLO, students should have the opportunity to practice the skill or tasks that compose it.



## How do SLOs, PLOs, and ILOs fit into El Camino College Processes?

In the classroom, the new Accreditation Standards require that SLOs become an integral part of every syllabus. SLOs should also act as a guide for classroom activities and direct classroom assessments or evaluations. Additional SLO prompts and guidelines have been added in the Program Review template to better integrate SLO and PLO assessments into college planning, program review, and budget processes. The addition of SLO prompts and guidelines in program review provides excellent opportunities to document evidence of program outcomes and an occasion to review the totality of the curriculum and resources that create a program.

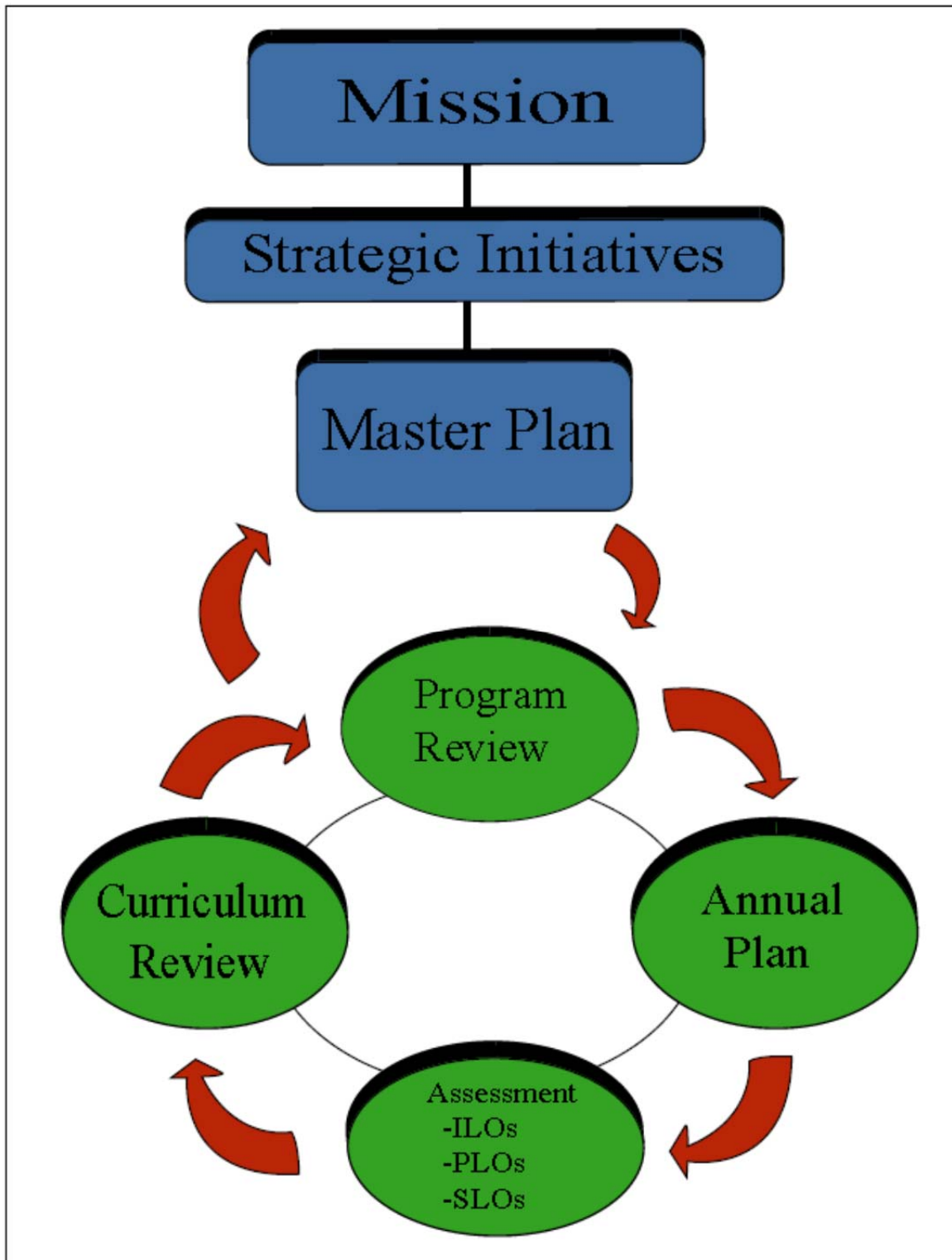
The revised College's planning model and language demonstrates the essential connection between outcomes assessment and the mission of the College and how assessment integrates with program review, curriculum, planning, and resource allocation.

The El Camino College Planning Model can be found here:

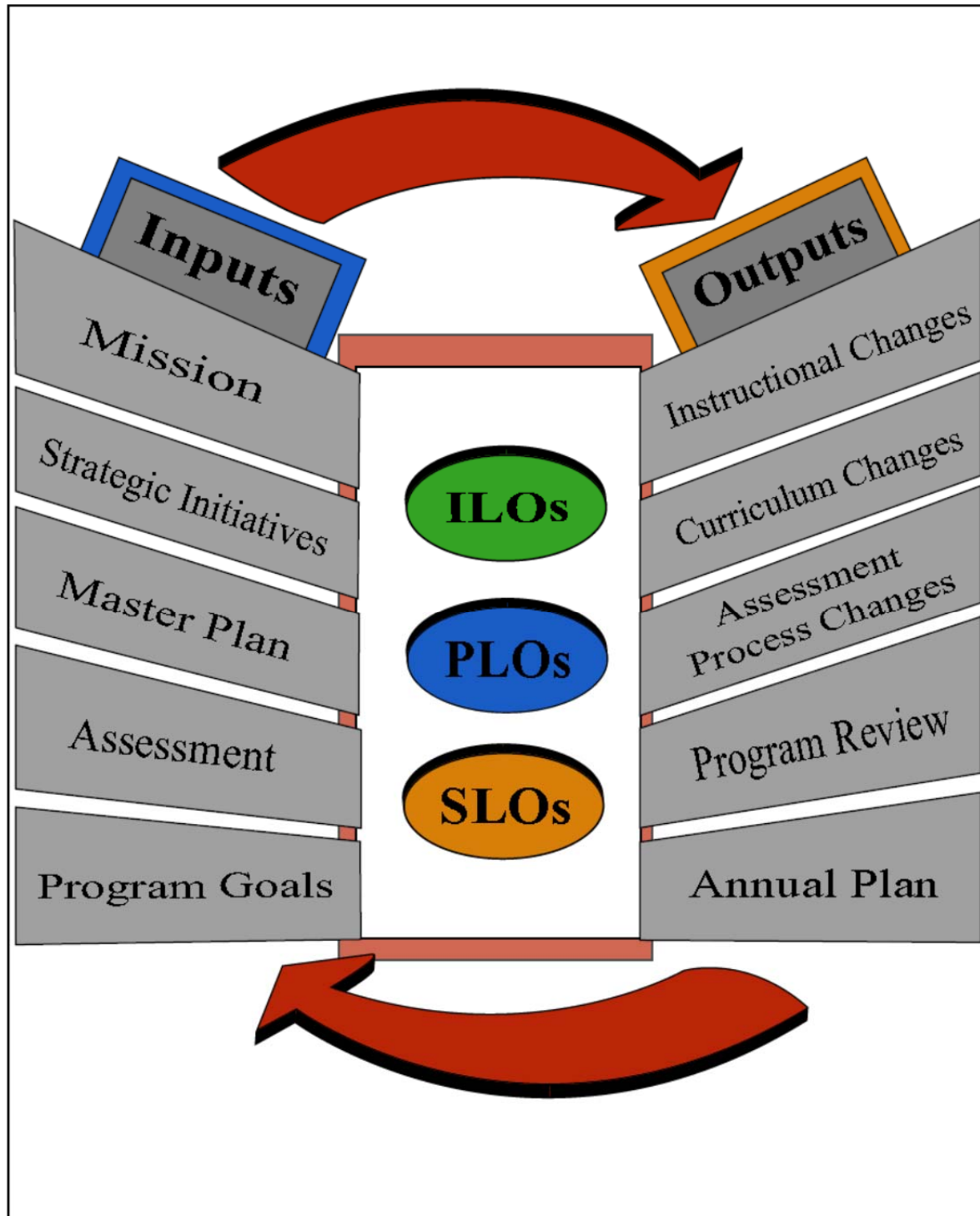
[http://www.elcamino.edu/administration/ir/docs/planning/PlanningModel2013\\_Final.pdf](http://www.elcamino.edu/administration/ir/docs/planning/PlanningModel2013_Final.pdf)

Refer to the below diagrams to see, in general, how assessment integrates with other college processes.

## SLO PLANNING MODEL I



## SLO PLANNING MODEL II



## What is an SLO?

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

## The Difference between SLOs and Course Objectives

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

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

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

- ❑ Don't think about content or coverage - consider what students should be able to DO with what they've learned by the end of the semester.
- ❑ How will students demonstrate this?
- ❑ What can they produce to show faculty that they have learned to apply their new knowledge?

When trying to define Student Learning Outcomes for a course, think of the big picture. SLOs:

- ❑ Concretely describe the broadest goals for the class, ones that require **higher-level** thinking abilities.
- ❑ Require students to **synthesize** many discrete skills or areas of content.
- ❑ Ask them to then **produce** something - papers, projects, portfolios, demonstrations, performances, art works, exams etc. – that **applies** what they have learned.
- ❑ Require faculty to **evaluate** or **assess** the product to measure a student's achievement or mastery of the outcomes.

	<b>Objectives</b>	<b>Outcomes</b>
Scope	Skills, tools, or content to engage and explain a particular subject	Overarching results - subsequent learning and application of skills learned to other courses and beyond.
Target	Details of content coverage and activities which make up a course curriculum.	Higher level thinking skills that integrate the content and activities.
Major Influence	Input – nuts and bolts	Output – Observable evidence (behavior, skill, or discrete useable knowledge) of learning.
Number	Objectives can be numerous, specific, and detailed to direct the daily activities and material.	SLOs are limited in number (a minimum of 3) to facilitate modification and improvement of teaching and learning.

In contrast, goals express the ideal vision of how students will be transformed by a course or program. Goals are often impossible to assess directly.

<b>Goals</b>	<b>Objectives</b>	<b>Outcomes</b>
A goal is a statement of intent or vision that is not necessarily measurable. Goals are usually found in the catalog description of a course or program.	Behaviorally measurable objectives are small steps (content knowledge, skills or attitudes) that lead toward a goal. Taken alone, assessments of each objective do not serve evidence that stated goals have been achieved. Objectives (or competencies) are listed in course outlines of record.	Student learning outcomes state the characteristics a student-created product should possess in order to demonstrate that learning has occurred. Students are asked to utilize the content knowledge, skills and attitudes listed in the course objectives. Assessments of student learning outcomes may be used as evidence that the goals of a course or program have been met.

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

## SLO Statement Checklist

### EL CAMINO COLLEGE COURSE SLO STATEMENT DRAFTING

Reviewed by SLO Facilitator: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by ALC Sub-committee Chair: \_\_\_\_\_ Date: \_\_\_\_\_

#### **COURSE NAME AND NUMBER:**

##### **SLO STATEMENT Number:**

(Enter Statement Here)

##### **SLO STATEMENT Number:**

(Enter Statement Here)

##### **SLO STATEMENT Number:**

(Enter Statement Here)

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

Approved by SLO/Faciliator: \_\_\_\_\_

Date: \_\_\_\_\_

# Sampling for the Assessment of Student Learning Outcomes

*Prepared by Preston Reed, Institutional Research & Planning*

Below is an overview of key sampling concepts along with several recommendations for those seeking to assess Student Learning Outcomes (SLOs) or Service Area Outcomes (SAOs). It is unlikely that there is one right answer to the sample size or technique that should be used, but we hope that these recommendations and notes for consideration will guide you as you conduct your assessments.

## Census vs. Sampling

Assessing the entire population is called a **census**, whereas assessing a smaller subset of the population is called a **sample**.

## Key considerations

When deciding whether to conduct a census or collect a sample, or when deciding how large your sample should be, there are several key items to consider.

1. **Class or program sizes** – If the program or course has a small number of students, it may be best to conduct a census. However, if there are a large number of students in the target population, a sample may be best.
2. **Length and complexity of artifacts** – If the artifact assessed is relatively short or easy to score, then it may be feasible for a larger number of students to be assessed. However, assessing some artifacts may be more time consuming due to length, necessity to norm grading scales, other factors, or some combination thereof.
3. **Size of the faculty panel reviewing artifacts** – The number of faculty members reviewing artifacts can have a large impact on the number of students that can feasibly be assessed. If the artifact is short and easy to assess, then fewer faculty members would be needed to assess a large number of students.

## Sample size recommendations

In general, when attempting to obtain an accurate estimate of a population, the larger the sample, the better the estimate. However, the factors noted above can impact the feasibility of obtaining a large sample of students. Our recommendation is to aim for as large of a sample as is reasonable.

## Recommended minimum sample sizes

Despite the desire to recruit and assess the entire student body within the program, this may not be feasible. Therefore, we are providing general guidelines for the minimum number of students that should be sampled. ***At minimum, we recommend that a sample consist of 10 students, or 10% of the population of interest, whichever is greater.***

## Sample selection techniques

Below are some brief descriptions of some common sampling techniques as well as some things to consider when choosing a sample selection technique (more info here:

[http://en.wikipedia.org/wiki/Category:Sampling\\_techniques](http://en.wikipedia.org/wiki/Category:Sampling_techniques)).



**Simple random sampling** – Sampling is done by randomly selecting a certain number of students or artifacts. Each student or artifact has an equal chance of being selected. With a large enough sample size, this technique may give the greatest confidence in generalizing to the population. Here is a useful tool for selecting students at random: <http://www.random.org/lists/>. You can paste in a list of student names, click “randomize,” then select the top 10 (or 15, or 20, etc.) students.

**Stratified sampling** – Students or artifacts are sorted into specific subgroups (e.g., by gender, ethnicity, major, day vs. evening, etc.), then a random sample is selected from each group. This may be a useful tool for when you want to ensure that certain groups are represented in your sample.

**Systematic sampling** – You select students based on a pre-determined order. For example, select every  $n^{\text{th}}$  (e.g., 3<sup>rd</sup>, 5<sup>th</sup>, 10<sup>th</sup>) student or artifact from a list. This approach may be more feasible than simple random sampling. However, it is important to consider how the order of students or artifacts may impact your findings.

**Cluster sampling** – Groups or clusters (typically classes or sections), and then all students within that cluster are evaluated. This approach may be useful when the assessment is best administered to an entire section rather than random students. However, it is important to consider the variation that can happen between different sections and instructors.

**A note on convenience sampling** – Convenience sampling is when a sample of students or artifacts is based on those who may volunteer or respond to a survey. Sometimes, this is the only way we can obtain responses. However, it is always important to consider that there may be important differences between those who agree to participate and those who don't. This should be considered when asking students to complete surveys or assessments or if only a few faculties volunteer to have SLO assessments incorporated into their course curriculum. These differences may impact your ability to generalize your findings to the population of interest.

## **Considerations**

When choosing a sampling strategy, it is always important to consider what implications the strategy may have on your ability to generalize your findings to the rest of the population. This should also be balanced with issues of feasibility. For example, whereas a simple random sampling of students may give us the best chance of generating a representative sample, there may be issues of access or sample size.

Whenever possible, we recommend comparing key demographics of the students sampled to the population of interest (at the course, program, or other level) to get an estimate of how representative the sample population may be.

## What is a PLO?

PLOs are overarching, specific, and observable behaviors evidenced by students who have achieved your program's educational objectives. Learning outcomes are stated operationally, and describe the observable evidence of a student's knowledge, skill, ability, attitude, or disposition as a result of a specific course of study, activity, or service.

Think about how to state clearly each outcome you are seeking: How would you recognize it? What does it look like? What will the student be able to do?

## PLO Statement Checklist

### EL CAMINO COLLEGE PLO STATEMENT DRAFTING WORKSHEET

Reviewed by SLO Facilitator: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by Sub-committee Chair: \_\_\_\_\_ Date: \_\_\_\_\_

**PROGRAM NAME:** \_\_\_\_\_ **DIVISION:** \_\_\_\_\_

**PROGRAM MISSION:**

**DEVELOP INTO**

**PROGRAM GOALS:**

**DEVELOP INTO**

**PROGRAM LEVEL OBJECTIVES:**

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

Approved by SLO/ALC Co-Chair: \_\_\_\_\_ Date: \_\_\_\_\_

## **Process for Changing SLO/PLO Statements**

1. Initiate discussion between ECC and CEC faculty on potential change of the statement(s).
2. Take the proposed draft to a department meeting.
3. Once minutes of the meeting have been approved and there is a clear record, e-mail the change request to the Facilitator, Division Dean, Academic Affairs office/SLO Admin (Isabelle Peña), and Compton Center Coordinator (Michelle Priest).
4. Academic Affairs office/SLO Admin will make the change in TracDat and concurrent change to the ECC SLO website.
5. Changes can be made to the course outline of record upon its next review.

## What is an SAO?

A Service Area Outcome (SAO) is a statement about what a student or client will experience, receive, or understand as a result of a given service.

SAOs identify what the student services and administrative units intend to accomplish or achieve in support of student learning.

Assessment is the continuous process of collecting, evaluating, and using information to determine if and how well performance matches learning or service expectations. For assessment to be truly effective, it must be authentic, meaningful, reflective, and self-regulated. The purpose of assessment is to use the results, positive or negative, to inform meaningful dialogue about how instruction and instructional and non-instructional services can be modified to provide students the appropriate tools to engage in the learning process and sustain institutional effectiveness

### *How are SAOs different than SLOs/PLOs?*

Student Learning Outcomes (SLOs) are statements about what students will think, know, feel or be able to do as a result of an educational experience. SLOs exist at the course, program (PLOs), and institutional (ILOs) level. Alignment grids demonstrate alignment from the course up through program and institutional levels.

Your department (faculty, managers, and classified staff) has the responsibility for SAOs and thus, has the authority on how they will be designed, developed, and assessed. SAO documentation should include the following:

- list of current outcomes
- methods that will be or were used to measure the outcome
- target/standard for the outcome to be considered successful
- timeline for assessment
- assessment reports, including assessment data, analysis, and planned actions

## Service Area Outcome Statements

A SAO statement expresses what a student or client will experience, receive, or understand as a result of a given service.

A client can be anyone receiving a service, including:

- students
- faculty
- staff
- community members

A service can include the following:

- Training sessions
- Development of facilities
- Professional development
- Information sessions or student orientations
- Development of schedules, catalogs, etc.

SAOs are statements that identify client responses to a certain service that your department provides. They identify activities that are critical and central to the unit. Designed and developed by your department, these statements provide evidence that positive student/client reaction has occurred as a result of a specific service. These statements are very similar to SLOs in that they examine the result of an experience but SAOs deal exclusively with non-instructional services provided to students or other members of the campus community.

**Sample SAO:** The EOPS program might have the following SAO: “Students who complete their contacts and are eligible for a book voucher have increased success and retention rates compared to students who do not fulfill our requirements.”

**Sample SAO:** The Outreach & Recruitment office might have the following SAO: “After attending an ECC information session, prospective students will be more knowledgeable regarding ECC programs, services and the steps of enrollment.”

**Sample SAO:** A Printing Services department might have the following SAO: “Faculty will experience improved access to Printing Services by making it easy to submit print jobs via the web.”

**Sample SAO:** The Human Resources office might have the following SAO: “Job interview panels trained on diverse behaviors and styles will conduct themselves with increased awareness.”

## **SAO Assessment**

SAOs may be measured in a variety of ways. Perhaps the most common means of assessing SAOs are client surveys or interviews/focus groups. These tools can provide your department with feedback about unit structures, processes, and the client experience. Internal and external data sources may also provide the information needed to determine if the outcome was successful.

## **Assessment Schedule**

Assessment Schedule (Timeline) specifies the time frame in which a plan/course of action will be assessed and who will administer the assessment. The timeline for SAO assessment depends on the number of SAOs for the department, the means of assessment data collection, and availability of department resources. Units do not need to assess all SAOs simultaneously—unless the unit deems such a timeline necessary and realistic given unit resources. Units may alternate the assessment of SAOs over months, quarters, or years. For example, if ECC’s Payroll department identifies six SAOs, the unit may assess two SAOs per year, resulting in a three-year assessment cycle for a given SAO.

## **SAO Alignment with Strategic Initiatives**

SAOs should be aligned with ECC SIs.

## **How Are SAOs Used?**

SAOs are connected to planning. The primary purpose of SAO identification and assessment is continuous improvement. Assessment results should provide a means for refining structures, processes, and strategies to better meet unit objectives or SAOs. After your unit identifies and assesses SAOs, the assessment results should be compiled and discussed with unit staff. The purpose of these discussions is to reflect on outcomes, brainstorm strategies for unit service improvement, and analyze unit objectives or SAOs to determine if adjustment is necessary. Improvements could include increased staff development, equipment purchases, software modifications, and process development. SAO assessment results should also be documented in a formal report.

## Bloom's Taxonomy- Objectives and Outcomes

Student learning outcomes should address relevant outcomes for each of these domains but must be appropriate to the course.



### Knowledge – Cognitive Domain

#### Objectives

Basic Knowledge

Higher Level Thinking

#### Outcomes

More Sophisticated

Critical Thinking

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Student re-members or recognizes information or specifics as communicated with little personal assimilation.	Student grasps the meaning behind the information and interprets, translates, or comprehends the information.	Student uses information to relate and apply it to a new situation with minimal instructor input.	Student discriminates, organizes, and scrutinizes assumptions in an attempt to identify evidence for a conclusion.	Student creatively applies knowledge and analysis to integrate concepts or construct an overall theory.	Student judges or evaluates information based upon standards and criteria, values and opinions.
Cite Label List Enumerate Identify Imitate Match Name Quote Recall Reproduce State Write	Convert Define Describe Discuss Estimate Explain Generalize Identify Illustrate Locate Paraphrase Restate Summarize	Apply Chart Compute Demonstrate Determine Dramatize Establish Make Manipulate Prepare Project Solve Use	Analyze Compare Contrast Correlate Diagram Dissect Differentiate Distinguish Infer Investigate Limit Outline Separate	Assemble Create Construct Design Develop Formulate Generate Hypothesize Initiate Invent Modify Reframe Synthesize	Access Appraise Conclude Critique Decide Defend Diagnose Evaluate Judge Justify Rank Recommend Support



# Skills and Abilities - Psychomotor Domain

## Objectives

Basic Knowledge  
Basic Skills Level



## Outcomes

More Sophisticated Skills  
Higher Level Abilities  
Critical Understanding of  
Performance



Observe	Model	Recognize Standards	Correct	Apply	Coach
Students translate sensory input into physical tasks or activities.	Students are able to replicate a fundamental skill or task.	Students recognize standards or criteria important to perform a skill or task correctly.	Students use standards to evaluate their own performances and make corrections.	Students apply this skill to real life situations.	Students are able to instruct or train others to perform this skill in other situations.
Hear Identify Observe See Smell Taste Touch Watch  *Usually no outcomes or objectives written at this level.	Attempt Copy Follow Imitate Mimic Model Reenact Repeat Reproduce Show Try	Check Detect Discriminate Differentiate Distinguish Notice Perceive Recognize Select	Adapt Adjust Alter Change Correct Customize Develop Improve Manipulate Modify Practice Revise	Build Compose Construct Create Design Originate Produce	Demonstrate Exhibit Illustrate Instruct Teach Train

# Attitudes - Affective Domain



## Objectives

Elementary Values and Behaviors  
Inherited Value System  
Egocentric View

## Outcomes

More Highly Developed Attitudes  
Well Thought-Out Value System  
Higher Level Abilities to Identify and  
Articulate Others' Values



Receiving	Responding	Valuing	Organizing	Characterizing
Students become aware of an attitude, behavior, or value.	Students exhibit a reaction or change as a result of exposure to an attitude, behavior, or value.	Students recognize value and display this through involvement or commitment.	Students determine a new value or behavior as important or a priority.	Students integrate consistent behavior as a naturalized value in spite of discomfort or cost. The value is recognized as a part of the person's character.
Accept Attend Describe Explain Locate Observe Realize Receive Recognize	Behave Comply Cooperate Discuss Examine Follow Model Present Respond Show Studies	Accept Adapt Balance Choose Differentiate Defend Influence Prefer Recognize Seek Value	Adapt Adjust Alter Change Customize Develop Improve Manipulate Modify Practice Revise	Authenticate Characterize Defend Display Embody Habituate Internalize Produce Represent Validate Verify

# A Guide to Reporting Assessments

El Camino College/Compton Center

## TracDat SLO Template

[www.elcamino.edu/academics/slo](http://www.elcamino.edu/academics/slo)

**How to Use this Template:** If you wish, you may fill out this template and transfer the information into TracDat once it is complete. This is a WORD document. Fields will expand as you type.

**How to Access Past Reports and Alignment Grids:** To access your past SLO reports, Alignment Grids, and past assessment reports, select the **Documents** tab at the top right of the main screen when you log in to TracDat. Past reports were saved as WORD documents.

**How to Log into TracDat:** <https://elcamino.tracdat.com> Use your ECC or Compton log-in and password.

**Due Date:** Assessment Reports are due the 3<sup>rd</sup> week of the following semester.

### COURSE LEVEL PLAN

**Course Number:** \_\_\_\_\_ **Course Name:** \_\_\_\_\_

**SLO or PLO Number and Statement:** *Note: This is a “view only” screen. Contact your facilitator if you wish to change your SLO or PLO Statements.*

**Faculty Assessment Leader:** \_\_\_\_\_ **Faculty Contributing to Assessment:** \_\_\_\_\_

**Course SLO Assessment Cycle:** *Note: This is a “view only” screen. New timelines beginning with Fall 2014 through Spring 2018 will be developed by each Program in Spring and input into TracDat for you.*

### ASSESSMENT METHODS

**Identify Assessment Method:** Choose ONE item that most closely relates to your assessment method (mark the box next to Method with an **X**). If more than one assessment tool is being used for this assessment select “Multiple Assessments.” You will be able to explain the assessment method(s) in more detail in the following section.

<input type="checkbox"/>	Case Study	<input type="checkbox"/>	Journal/Log	<input type="checkbox"/>	Presentation/Skill Demonstration
<input type="checkbox"/>	Essay/Written Assignment	<input type="checkbox"/>	Laboratory Project/Report	<input type="checkbox"/>	Project
<input type="checkbox"/>	Exam/Test/ Quiz	<input type="checkbox"/>	Multiple Assessments	<input type="checkbox"/>	Standardized/Licensing Exam
<input type="checkbox"/>	Fieldwork Internship	<input type="checkbox"/>	Performance	<input type="checkbox"/>	Survey/Focus Group
<input type="checkbox"/>	Homework Problems	<input type="checkbox"/>	Portfolio	<input type="checkbox"/>	Term/Research Paper

**Assessment Method Description:** In a sentence or two, describe the planned course SLO assessment. If you wish, you can attach the actual assessment instrument by first selecting "Save Changes", then selecting "Relate Document."

*HINT: Be sure to "Save Changes" to activate the "Relate Document" button.*

Enter text here.

**Standard and Target for Success:** Describe the standard you will use to determine success in your assessment. If you are using a rubric, attach the rubric. Include your target for student success for this SLO. This target for student success should be based on a clear standard. For example:

Based on Percentages: "It is expected that 85% of students will score 75% or above on this SLO."

Based on Rubric: "It is expected that X% of students will score 4 or above on this SLO."

Enter text here.

**Related Documents:** This tab lets you upload documents. You may wish to upload your actual assessment tool, rubric or any other relevant material here.

## RESULTS

**Assessment Data & Analysis:** What are the results of your assessment? Provide the assessment data. Summarize the patterns observed in the data. What were the most important findings from the data?

Enter text here.

**Date Assessment Data & Analysis Entered:** Enter the date this section was completed. This may be different than the "Semester and Year Assessment Conducted." For example, you may have entered the data and analysis in the spring, but conducted the assessment the previous fall semester. Enter date here (MO/DA/YEAR format).

**Semester and Year Assessment Conducted:** Enter the semester and year the assessment was conducted. This may be different than the "Date Assessment Data & Analysis Entered." For example, you may have conducted the assessment in the fall but are entering the results in the spring. Enter Semester and Year here.

**Standard Met?** Was the target you set in the "Standard and Target for Success" section met? (Mark the box with an X.)

☐ Yes ☐ No

**Note:** If the target was not met, consider re-assessing this SLO sooner than indicated on the timeline. If the target has been met consistently, consider revising your SLO or developing a new SLO statement. If you plan to assess this SLO or PLO earlier than indicated on your timeline, enter it as an "Action Item" and provide the date you plan to re-assess this SLO.

**Related Documents:** This tab lets you upload documents. You may wish to upload your actual assessment data, graphs, or any other relevant material here.

### Action Plan

**Describe Actions Needed to Improve Student Learning:** Address as many categories as needed.

**Teaching Strategies:** Needed changes to teaching strategies to improve student learning.

**Curriculum Changes:** Needed curricular changes (pre-requisites, major topics, objectives, etc.).

**Program/College:** Anything the Program or College should do to support any of these changes.

**SLO Assessment Process:** Needed changes to the SLO statement or assessment process based on results.

<b>Action</b> (One action plan per row.) Enter only those actions for which you wish to develop a plan.	<b>Action Category</b> Teaching Strategies Curriculum Changes Program/College Support SLO Assessment Process	<b>Action Due Date</b>
Enter text here.	Enter Category here.	Enter Date here
Enter text here.	Enter Category here.	Enter Date here
Enter text here.	Enter Category here.	Enter Date here
Enter text here.	Enter Category here.	Enter Date here

### Follow Up

(Note: This section becomes active in TracDat once an action has been entered.)

Consider the following prompts for this section. What Action was taken? When was the Action implemented? What are the implications of the observations and/or data that resulted from implementation of the Action? Describe any changes to student learning that were observed and/or describe any data that resulted from the Action. (Note: These observations may be anecdotal or preliminary with additional information provided at a later date.) What other follow-up or Action(s) should be taken, if any?

# TractDat Quick Start Guide (Updated 9.9.13)

## Entering SLO Reports

### Logging In

<https://elcamino.tracdat.com>

Selected Unit: El Camino: Course SLOs (FA) - Music

Home Discipline Course Level Plan Results Reports Documents

Summary Calendar Profile

4) - Music > Home > Summary

1. Select the Program for which you wish to enter data for the SLO from the drop down.

2. Select Course Level Plan

Selected Unit: El Camino: Course SLOs (FA) - Art

Home Discipline Course Level Plan Results Reports Documents

Course SLOs Assessment Methods Related Items

El Camino: Course SLOs (FA) - Art > Course Level Plan > Course SLOs

Course: ECC: ART 101 - Art and Visual Culture in Modern Life

Course SLO Name	Course SLO	Course SLO Status	Created By
SLO #1 Art or Visual Culture	Students will demonstrate their knowledge of art terminology and methodology by analyzing an appropriate example from art or visual culture including a description of subject matter and iconography, an analysis of form and style, and a comprehensive interpretation of its overall meaning(s) in relation to context.	Active	El Camino: Course SLOs (FA) - Art

3. Select the course from the drop down menu. If there is only one SLO it will appear. If there is more than one, select the SLO statement.

4. Select **Add New Assessment Method Description** at the bottom of the page.

Add New Assessment Method Description Return To Course SLO

Course: Intro to Field of Education

Course SLO Name: SLO #1 Comparing Career Options in Education

Course SLO: After reading the textbook and course modules, participating in class discussions, and visiting selected school sites, students will apply their knowledge of educational requirements and resources, state standards, qualities of effective educators, and the rewards and challenges of a career in education by preparing a...

Assessment Method: [dropdown]

Assessment Method Description: [text area]

Standard and Rubric: [text area]

Notes: [text area]

Save Changes Discard Changes Return Assign

5. Choose **Assessment Method** from drop-down menu.

6. Enter the data.

7. Save Changes.

8. Select Return. (Ignore **Assign** for now.)

Selected Unit: El Camino: Course SLOs (BSS) - Education ▼

Home Discipline Course Level Plan **Results** Reports Documents

ts > By Course

Course: ECC: EDUC 201 - Foundations in Education ▼

[Add Assessment Data & Analysis](#)

9. Select Results
10. Select the SLO Statement.
11. Select **Add Assessment Data & Analysis**
12. Enter the information.
13. Select **Related Documents** to attach a document.
14. Select **Add Action**.

**By Course**

El Camino: Course SLOs (BSS) - Childhood Education > Results > Edit Assessment Data & Analysis

Course SLO: SLO #2 Value of Play : Examine the value of play as a vehicle for developing skills knowledge, dispositions, and strengthening relationships among young children.

Assessment Method Description: Exam/Test/Quiz - Quizzes at mid term and final.

Standard and Rubric: 80% of students will score 80% or above on the assessment at the end of the semester.

Assessment Data & Analysis: \* See attached data.  
I wasn't extremely confident when I was creating the assessment tool, basing my questions on teaching the class only a few semesters thus far. I overestimated the students' ability to process some of the information and evidently my ability to

Assessment Data & Analysis Date: 7/8/2013 Standard Met: No ▼

Semester of Current Assessment: 2012-13 (Spring 2013) ▼

Action Plan **Related Documents**

[add Act](#)

You will have the option to select **Yes or No**

Action: \*

Action Date: \* 7/23/2013

Action Category: \* ▼ ?

[Save Changes](#) [Discard Changes](#) [Return](#) [Delete Action](#) [Assign](#)

15. Enter the action.
16. Select the **Action Category** from the drop down menu. Include only those with an action. Ex: If it states "No curriculum changes are needed" do not include that category.
17. Enter the date the action will be implemented.
18. To add another action Click **Add Action** and repeat steps above.
19. **Save Changes**. Ignore **Assign** for now.

[add Action](#)

Action Date	Action	Follow-Up	
2/29/2016	Make sure the questions on the SLO assessment correlate to what is being taught to make it a more authentic measure.	0	<a href="#">edit</a>   <a href="#">add Follow-Up</a>