

# **The Skyline College SLOAC Framework:**

## **An Implementation Guide for the Student Learning Outcomes and Assessment Cycle**

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*Version 4*

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Developed by the Skyline College SLOAC Committee



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# **S**ECTION ONE: *COLLEGE IMPLEMENTATION MODEL*

## **OVERVIEW**

This section of the framework provides information on Skyline College’s approach to student learning outcomes and assessment.

The mission of Skyline College is to empower and transform a global community of learners.

In keeping with that mission, Skyline College College’s continuous assessment of student learning outcomes informs key processes and allocation of resources. The Skyline College

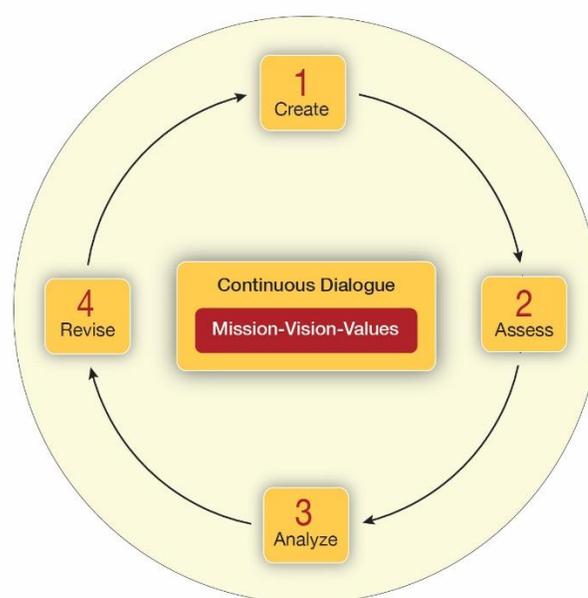
SLOAC process ensures that assessment at all levels—course, program, and institution-- is integrated through collaborative, college- wide

planning, and supports the overall mission, vision, values, and goals of the college. The

graphic depiction of the model demonstrates this cycle of continuous feedback. The

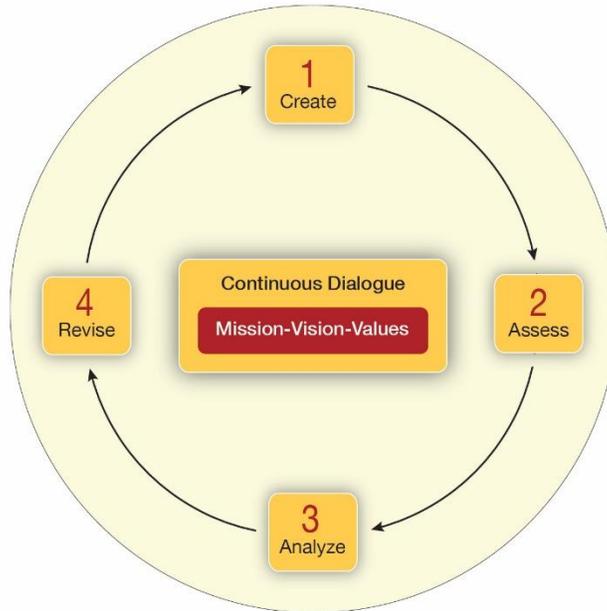
process describes the flow and recommended starting points, and the philosophy

provides the vision and direction for SLOAC at Skyline College.



## SLOAC PROCESS

The Skyline College process for outcomes assessment revolves around continuous dialogue to ensure a systematic, ongoing cycle of authentic assessment. Such assessment is crucial to the continuous understanding and improvement of student learning.



Authentic assessment promotes continuous improvement by providing necessary evidence to guide effective decision-making at all levels: course/classroom level; program level, including student support services; and institutional level. Assessment involves “the systematic collection, analysis, interpretation, and use of information to understand and improve teaching and learning...Assessment is an ongoing process aimed at understanding and improving student learning” (Thomas A. Angelo, AAHE Bulletin, November 1995, p.7).

The central questions we are continuously assessing are:

1. Upon completing a course/ program/ degree (including utilization of or participation in student services or special programs/services), what do we want students to learn?
2. How do we know they have learned it?
3. If the assessment results are less than satisfactory, what do we need to refine in order to help them to learn?

## RECOMMENDED STARTING POINTS

For most faculty, the fundamental assessments are at the **course level**.

- Faculty and staff inform students about student learning outcomes (SLOs) via the course outline of record posted on [Curricunet](#) and syllabi, and reference the relevant SLOs in major assignments/tasks.
- Faculty and staff articulate and assess SLOs at the course level. When courses have more than one section, ideally all of the faculty teaching those courses will assess.
- Faculty and staff use course assessment results to gauge learning, and when needed, revise and refine instructional materials, pedagogy, curriculum, and/or assessment. Note these actions and related resource requests in the [annual program planning](#) and [comprehensive program review](#) self-study, which in turn inform resource prioritization and allocation.

At the **program level**, instructional departments and student service programs are responsible for formulating and assessing student learning outcomes, and then analyzing and acting on the assessment results.

- Faculty and staff inform students about program student learning outcomes (PSLOs) via the College Catalog and/or the College website.
- Faculty and staff from their respective departments and programs assess and analyze the results to gauge student learning, generating action plans as needed to strengthen student learning. Generally instructional program level SLOs will be assessed through analyzing course level assessment results, but other assessment methods such as surveys and licensure rates are options as well. Student service PSLOs will be assessed through appropriate means.
- Document these action plans and resource requests in the [annual program planning](#) and [comprehensive program review](#) self-study.

At the **institutional level**, the process of creating and assessing student learning outcomes, and then analyzing and acting on the results is accomplished by college-wide, collaborative efforts.

- Faculty and staff inform students about institutional student learning outcomes via the College Catalog and the Student Handbook. They also may reference the ISLOs with which their courses align on their syllabus or major assignments.
- The Office of Planning, Research & Institutional Effectiveness and other college constituencies [assess ISLOs](#) and [publish the subsequent analysis of results](#) for discussion and action by relevant departments and services.

- Through the [annual program plan](#), departments consider how their respective disciplines or service areas contribute to students' fulfillment of the ISLOs, and how to improve students' fulfillment.

## **A MODEL FOR COLLEGE IMPLEMENTATION**

The Student Learning Outcomes model represents the College's commitment to institutional effectiveness at the course, student services, program and institutional levels. The cycle of assessment is continuous. Each level itself begins with planning, continues through implementation and finally assessment. The assessment process is not complete until the results are analyzed and acted upon, as needed. The completion of one cycle will have an effect on the process and signal the launch of a subsequent cycle. It is this type of continuity among all stages of the cycle that helps to build on strengths or improve weaknesses through a reflection on the cycle as a whole.

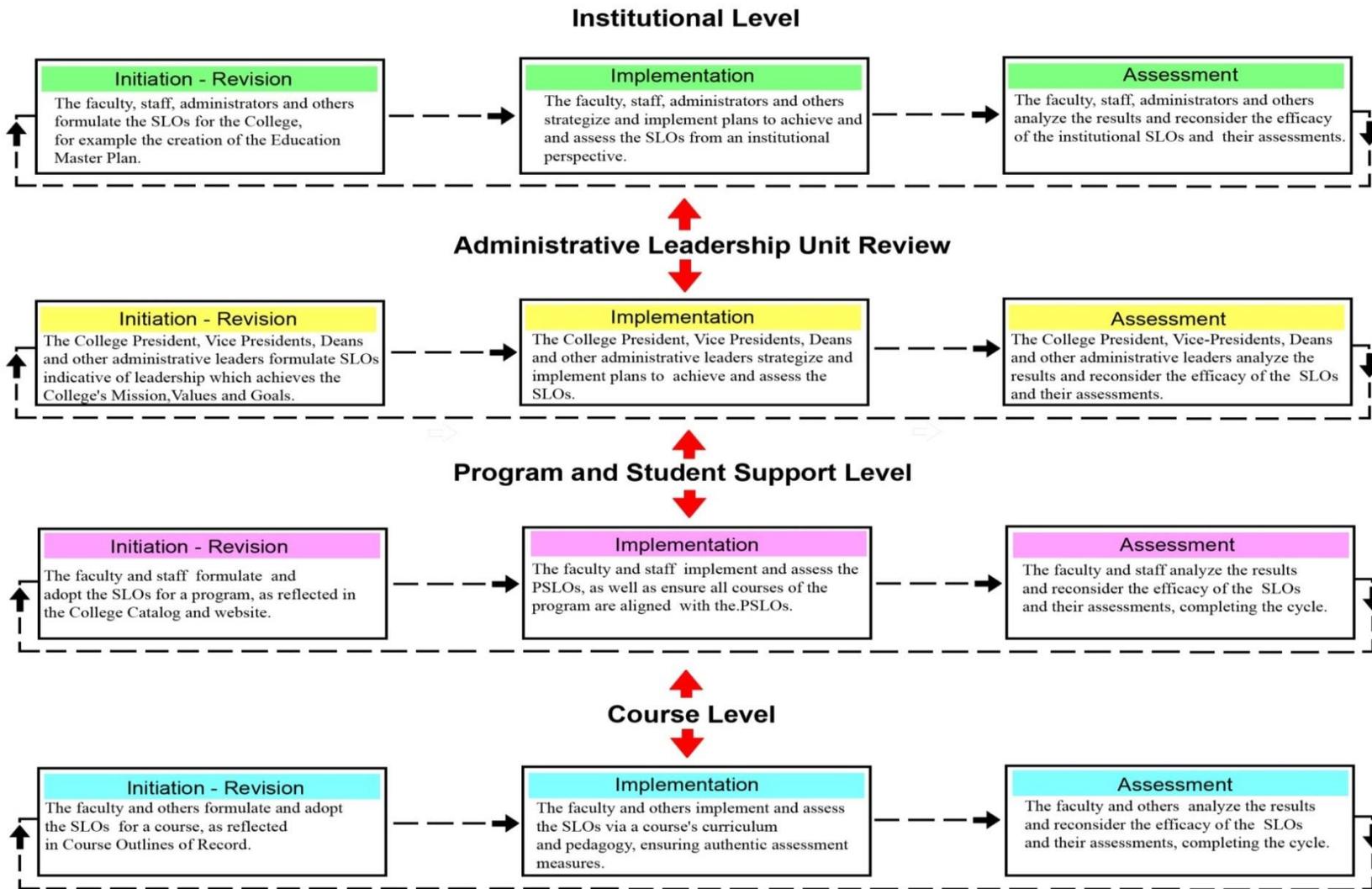
There has been much discussion about the implications of assessments on faculty. It is therefore extremely important to note that a College SLOAC Philosophy was forged in 2005 (Appendixes [L](#) and [M](#)) and several outstanding SLOAC resolutions were approved by the Academic Senate of Skyline College College in 2012 ([Appendix N](#)):

1. The Academic Senate of Skyline College supports the primary role and responsibility of faculty in the development and assessment of course, program, and institutional student learning outcomes;
2. Further, the Academic Senate of Skyline College maintains that the processes established for assessment of course, program, and institutional student learning outcomes should be designed to empower faculty to improve their professional abilities as educators and to encourage meaningful collegial dialogue about improving student learning and program effectiveness.
3. The Academic Senate of Skyline College affirms its resistance to including the results from assessing student learning outcomes as an aspect of individual faculty evaluations, but rather should be used for course and program improvement;
4. The Academic Senate of Skyline College will work with the ACCJC and with other concerned statewide faculty organizations to ensure that accreditation recommendations do not use student learning outcomes in any manner that would undermine either local bargaining processes or the academic freedom of individual faculty members.

Hence, the fundamental premise of the entire SLOAC endeavor is to be a positive, pertinent, and constructive attribute of Skyline College College's continual striving for excellence.

# SKYLINE COLLEGE SLOAC IMPLEMENTATION MODEL

Relationships  
 Cycle paths

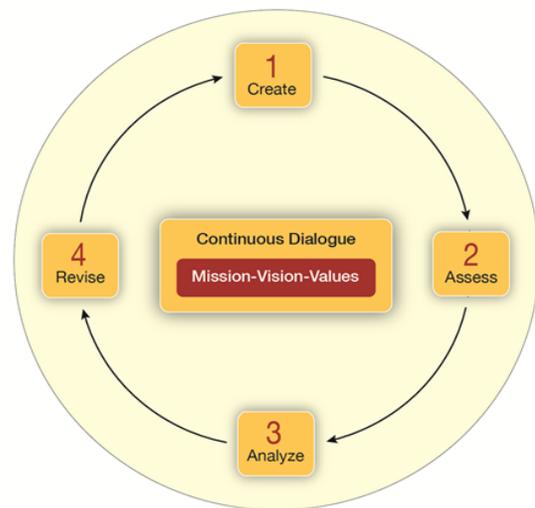


# **S**ECTION TWO **STUDENT LEARNING OUTCOMES** **(INSTRUCTION)**

## **OVERVIEW**

This section of the framework provides information on Skyline College’s approaches to creating student learning outcomes.

*If you are working with existing SLOs or are comfortable with SLOs already created, the next step is to create an assessment plan for your SLOs. Information about assessment plans can be found in [Section Three](#).*



We begin with

- (1) a definition of student learning outcomes and how they affect learning, as well as
- (2) the distinctions between objectives and outcomes.

We then offer two different “step by step” approaches to help you write course level student learning outcomes, including a checklist for you to use once they are written.

Also covered is how to generate Program Student Learning Outcomes for degree and certificate bearing programs.

Note: Some of the resources in this chapter were adapted from Bakersfield College’s and Cabrillo College’s assessment resources. We also built upon presentations by Dr. Mary Allen, a consultant in assessment and accreditation in higher education.

## THE SLO ENVIRONMENT

Learning is a complex and reciprocal process that involves mutual expectations between students and faculty or staff. How well a student learns is as dependent upon how much s/he invests in the process as it is on the conditions for learning situated in courses, programs, and institutions. Faculty or staff expect students to be prepared and committed to learn. Students, in turn, expect faculty to create effective learning environments and opportunities. They expect faculty to hold them to appropriate standards and to help them attain these standards.

The College aims to improve instruction and learning at all levels while satisfying an important component of accreditation. To this end, we have developed and implemented a transparent, flexible, and sustainable process to assess learning. As one aspect of transparency, Student Learning Outcomes (SLOs) help to clarify the responsibilities of students, faculty and staff, the latter of whom are vested with the power to formulate SLOs at all levels: course, program, and institutional. Furthermore, the Accrediting Commission for Community and Junior Colleges (ACCJC), our accrediting body, requires that SLOs be included in course syllabi to make outcomes visible to students; deans are responsible for regularly reviewing course syllabi to ensure that they include SLOs. Students are reminded of the SLOs via explicit references to classroom activities and major assignments, explanations about when and how SLOs will be assessed, as well as prompt feedback to enhance learning. Thus, students should have a better sense of how to work with each other and with the instructor or staff to achieve these outcomes.

The College is committed to each instructor's pedagogical freedom --to use their own style, process, and material. Examples of these variations are using different textbooks, having different assignments, or utilizing different methodologies for teaching course material. However, the course content is consistent with the Course Outline of Record and promotes the same outcomes.

We adhere to the following resolutions pulled from the Skyline College Academic Senate's Spring 2012 resolutions:

1) WHEREAS, the development and assessment of student and program learning outcomes does not infringe upon Academic Freedom as defined by the *1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments (AAUP Policy Tenth Edition, 2006)*;

FURTHER RESOLVED, That the Academic Senate of Skyline College will work with the ACCJC and with other concerned statewide faculty organizations to ensure that accreditation recommendations do not use student learning outcomes in any manner that would undermine either local bargaining processes or the academic freedom of individual faculty members.

While individual faculty have a strong voice in how and what they teach- within the parameters of the course outlines of record, they are encouraged to collaborate with each other when creating outcomes, assessment plans, and analyzing and acting on assessment results. Arriving at points of consensus, such as the core knowledge, skills and attitudes/ mindsets that students will attain, and how their work will be evaluated, will benefit students so that no matter whose course they take, they will emerge with common outcomes. When used for ongoing conversations about teaching effectiveness, SLO assessment becomes integral to the program evaluation and planning processes.

## **WHAT ARE STUDENT LEARNING OUTCOMES?**

**An SLO contains three primary characteristics:**

- **States what a learner will be able to do upon successful completion of a course, program, service, and/or degree or certificate;**
- **Is expressed using active verbs, and as such, incorporates one or more of the domains of learning (cognitive, psychomotor, or affective);**
- **Is assessable and measurable.**

An SLO is a clear statement of what students will be able to do with what they have learned, upon successfully completing a course, degree or certificate program or utilizing a service. It describes the assessable and measurable knowledge, skills, abilities or attitudes that students should attain by the end of a learning process.

An individual SLO is formulated using active verbs (such as “analyze,” “compare,” “demonstrate,” “compose,” and “embody”) that may derive from Bloom’s taxonomy of learning or discipline specific terminology. For example, an American Sign Language student may “sign,” a computer systems student may “code,” and a music theory student may “realize.” A set of SLOs for a particular course or program may incorporate any or all of the following three domains of learning that were developed by Benjamin Bloom to classify intellectual behavior and learning:

- cognitive (knowledge and understanding),
- psychomotor (physical skills and abilities), and
- affective (attitudes, behaviors, and values).

Refer to [Appendix A](#) for a fairly comprehensive list of active verbs for the three domains of learning.

Each SLO will be assessed by evaluating appropriate student performances or products (such as exams, essays, presentations, projects, portfolios, demonstrations, performances, art work, etc.). The student products or performances being assessed should display evidence that learning has occurred at a specified level of competency and as a result of completing the course or program. Evaluative criteria and standards—which can be captured in rubrics—are highly recommended to evaluate the quality of student performances or products. Developing appropriate methods of assessment as well as clear evaluative criteria are as important as writing clear SLOs.

## **OBJECTIVES VS. SLOS**

One way to understand the distinction between objectives and SLOs is to understand how they are related to each other.

Consider the following example from a Skyline College developmental English course. What differences do you note?

### Course Objectives:

Provide instruction in the following areas:

- Pre-writing activities;
- Organization: paragraph and essay unity;
- Thesis statements/ topic sentences;
- Introductions and conclusions;
- Revision, editing, and proofreading strategies;
- Sentence-combining;
- Various rhetorical modes with an emphasis on compare-contrast, classification, persuasion.

Course SLO:

Write focused, coherent, well-developed largely text based essays appropriate to the developmental level organized into effective paragraphs with major and minor supporting details, which support a clear thesis statement, and demonstrate competence in standard English grammar and usage.

The course **objectives** make explicit what the teacher will provide to enable students to fulfill the **outcome**, breaking down the process into manageable stages. The SLO requires students to employ higher level thinking that integrates the content and activities, mentioned or outlined in the objective.

When articulating student learning outcomes, think of the big picture. As such, SLOs:

- Are broad in scope and require **higher order critical thinking**;
- Require students to **synthesize** many discrete skills or areas of content;
- Ask students to **produce** something-- papers, projects, portfolios, demonstrations, performances, art work, exams, etc.-- that applies what they have learned;
- Require faculty to **evaluate** or **assess** the product to measure students' achievement or mastery of the outcomes.

On the other hand, objectives are on a more microscopic level, describing discrete skills, tools, and content. Think of objectives as the building blocks used to produce whatever is used to demonstrate mastery of an outcome. Objectives can be practiced and assessed individually, but are usually only a portion of an overall project or application.

In sum, consider the distinctions described in the following table:

<b>Objectives/ Teacher</b>	<b>Outcome(s)/ Student</b>
Objectives describe skills, tools, and/or content (nuts and bolts) that enable a student to fulfill the outcome(s).	Outcome(s) describe overarching product(s) that students will generate by applying the skills, tools, or content.

Objectives may require the use of less sophisticated tasks such as comprehension or replication.	Outcome(s) require the use of higher level critical thinking such as analysis, synthesis, and evaluation in order to demonstrate students' ability to apply the skills, tools, and/or content in authentic contexts for learning.
Assessing all objectives may be impossible because they often are too numerous due to being so specific and detailed.	Outcome(s) are assessable; they result in product(s) that can be observed as a behavior, attitude, skill, or discrete usable knowledge <i>and</i> can be evaluated against criteria.

See [Appendix B](#) for an exercise on differentiating between objectives and SLOs.

As you write your SLOs, keep the following in mind:

- **Try to limit your SLOs to no more than three** since you're expected to assess all of them. SLOs need not be exhaustive but rather capture the competencies which faculty prioritize and can arrive at by consensus.
- **Make sure that the SLO is something that can be assessed or tested.** For example, be careful when describing mindsets in a learning outcome. They are hard to directly assess. Ask yourself if the mindset is crucial to success in your course or service. Are you satisfied if a student possesses the knowledge and skills being taught but doesn't have a certain mindset?
- **Use action verbs.** See [Appendix A](#) for the action verbs in Bloom's Taxonomy.
- **Write the SLO in language that a student will understand.** Clear SLOs should convey to students the significance of what you teach. While students may not understand an SLO at the beginning of a course, they should have a solid understanding by the end. To check for clarity, get feedback on the SLO from colleagues who is NOT in your field. See if they understand it.

See [Appendix C](#) for the Student Learning Outcomes Checklist to evaluate the quality and appropriateness of your SLOs.

## WRITING COURSE SLOS

Time to get started!

It's helpful to keep in mind that SLOs provide a focus for a course, no matter who is teaching the different sections, so generally discipline faculty should be in agreement about what is core to a course. Secondly, SLOs will be assessed. As such, the SLOs should be readily observable in what students do, for example through their written work, exams, labs, presentations, and/or performances, or how they view themselves, for instance through a survey in which they reflect on their competencies or practices.

Three possible approaches to crafting your course level SLOs can be derived from the following:

1. **Major Assignments, Projects, or Tests**. List all of your major assignments for the course or service. Describe *what* the students are being asked to demonstrate in this assignment

Note that sometimes multiple assignments will have a common SLO. Depending on the number of outcomes, each sentence should describe each major knowledge, skill or attitude that a student will have gained by the end of your class.

2. **Objectives**. Review the specific objectives of the existing course outline or service. Categorize them according to the larger purpose that they will serve and tie these objectives to something students will produce, making them measurable in a given context.

3. **Program or Institutional SLOs**. Articulate how the PSLOs and/or ISLOs manifest in the course. For instance, how does critical thinking manifest within the course?

## **WRITING INSTRUCTIONAL PROGRAM SLOs**

All instructional programs that lead to a certificate or degree have program student learning outcomes (PSLOs). They are knowledge, skill/ability and/or attitude that a student can demonstrate upon completion of a program.

Instructional PSLOs can be generated from:

- how your discipline supports students' mastery of the ISLOs;
- similar types of course learning outcomes that run through multiple courses within a discipline;
- the discipline's key concepts or ways of thinking;
- the appropriate methodologies to examine questions within a discipline;

- industry standards and/ or licensure expectations;
- professional organizations’ educational guidelines;
- input from key stakeholders such as students, alumni, and employers.

PSLOs should be posted in the College Catalog, the departmental website, and in Tracdat/ Improve. Course level SLOs should be mapped to the relevant PSLOs.

## **MAPPING COURSE SLOs TO PROGRAM SLOs**

Through mapping, faculty determine whether and how the course aligns with the PSLOs. Also known as “curriculum mapping,” it shows how a course supports a student’s comprehensive learning experience within a pathway, for example enroute to attaining a degree in a given discipline.

Typically represented via a two-dimensional matrix, mapping can be conceived of in two ways. Presently faculty are asked to indicate only which course outcomes align with each PSLO and ISLO, with each course outcome in a column, and each of the PSLOs or ISLOs in a row. The purpose is primarily for program level assessment, since the alignment will enable course level results to “roll up” to the PSLO to which it aligns.

But faculty can engage in a deeper analysis of degree or certificate bearing programs, especially those with required or highly recommended sequences. (This concerted approach also may become more pressing for pathways that are under construction.) With this deeper analysis, faculty identify which courses address which PSLOs, and to what degree (e.g., “introduced, practiced or demonstrated at a mastery level”). As such, faculty can evaluate overall program coherence. Documenting when and how a PSLO is taught reveals gaps in the curriculum, and also may inform recommended course sequences of prerequisites. It also provides a useful roadmap to determine when to assess.

Completing a matrix like the example below enables faculty to determine whether students have been introduced to the outcome and had formative feedback and opportunities for practice enroute to mastery. It also helps to identify which courses are best suited for program assessment, for example if comparing how students fare in introductory versus advanced courses in the discipline. By making subsequent revisions to courses to strengthen the overall coherence of a program, the likelihood of students achieving the PSLOs also increases.

For practice, conduct an analysis of the following example in which PSLOs are introduced (I), practiced and reinforced (P), and demonstrated at the mastery level (D). Consider the following questions afterward:

- Is each of the outcomes sufficiently introduced?
- Do students have enough opportunities to practice before being expected to demonstrate an PSLO at the mastery level?
- Which PSLOs, if any, either need to be more frequently addressed in the required courses or perhaps deleted altogether?
- For programs that recommend or require a specific progression, does the mapping support the recommendation/requirement? If not, what needs to be revised: the overall order or certain courses' content?

	<b>PROGRAM SLOs</b>			
Course	PSLO 1	PSLO 2	PSLO 3	PSLO 4
100	I			
101		I		
102	P		P	
103				
200	P		P	
229				I
230			P	
280				
290	D		D	

See [Appendix D](#) for a template to align courses with PSLOs.

## MAPPING COURSE SLOs TO INSTITUTIONAL SLOs



Graphic designed by Skyline College student Livius Darmawan

An institutional student learning outcome (ISLO) is a knowledge, skill, ability, and/or attitude that students should attain by the end of their college experience. Here at Skyline College, students who complete an A.A./ A.S. degree and/or transfer preparation should have mastered the following institutional SLOs: Citizenship, Critical Thinking, Effective Communication, Information Literacy, and Lifelong Wellness.

Mapping course-level SLOs with institutional SLOs enables you to identify which courses within your program may be contributing to student achievement of these outcomes, even if your discipline's approach differs from others'. You may be asked to participate in the interdisciplinary assessment of the ISLOs that your courses are mapped to. Conversely, mapping gives us the means to determine whether our institutional SLOs reflect our priorities as instructors.

To map your course SLOs to ISLOs, using Tracdat/Improve is easiest. But the chart in the appendix is a starting point if you'd like to reference a print copy. Input the names of all of the courses in your program at the top, and identify which SLOs from a given course are "central" to the course within the

table. An SLO is “central” if it is essential to the course’s intent and therefore an instructional priority, and students demonstrate that SLO with an assignment, presentation, and/or performance, ideally one that you evaluate. Leave the space blank if the institutional SLO does not apply.

For programs that don’t have courses, such as student service areas, map your program outcomes to the institutional outcomes.

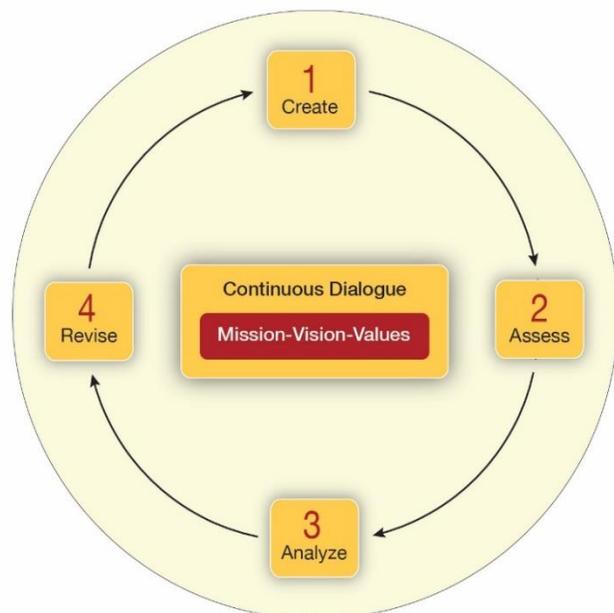
See [Appendix E](#) for the matrix.

-  **Effective Communication**
-  **Critical Thinking**
-  **Lifelong Wellness**
-  **Citizenship**
-  **Information Literacy**

# **S**ECTION THREE: **ASSESSMENT PLANNING & IMPLEMENTATION** **(INSTRUCTION)**

## **OVERVIEW**

This section describes Skyline College's approach to instructional student learning outcomes assessment at the course, program, and institutional levels. You will learn about activities and assignments that measure student learning which can be applied at each of those levels. Special emphasis is given to developing a three-year assessment calendar, and using Tracdat/Improve to create an assessment plan, record your results and action plans, and generate assessment reports.



## **WHAT IS ASSESSMENT?**

By assessment we mean “The ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve performance. When it is embedded effectively within our institutional system, assessment can help us focus our collective attention, examine our assumptions, and create a shared academic culture dedicated to assuring and improving the quality of higher education (Angelo, AAHE Bulletin, November 1995, p.7). To achieve these goals, assessment must be an ongoing, cyclical process requiring planning, implementation, evaluation, and monitoring on a minimum of four levels: course, instructional program, student services program, and institutional. For a more extensive explanation of Skyline College’s guiding principles of assessment, see [Appendix O](#).

## **WHO WILL DO ASSESSMENT?**

Skyline College’s faculty and staff, in consultation with the entire college community, will create and design assessment activities and identify the core knowledge, skills, and attitudinal dispositions that students need to master. The faculty and staff will likewise develop benchmarks by which student progress can be evaluated. These will be ongoing processes, open to modification and improvement.

## **ACTIVITIES AND ASSIGNMENTS THAT MEASURE STUDENT LEARNING**

Student learning can be measured directly or indirectly. Balanced assessment can include both direct and indirect measures, depending on capacity.

- Direct measures are methods of collecting information about student learning that require students to directly display their knowledge, skills, and/or abilities. Direct measures usually employ a systematic scoring system, such as a rubric or checklist.
- Indirect measures are methods of collecting information about student learning that ask students to reflect on their learning rather than demonstrate it. Indirect measures often involve collecting opinions and perceptions from surveys and/or focus groups, as well as gathering pertinent statistics from department or college records.

Direct measures require students to demonstrate their knowledge, skills, and attitudes whereas indirect

measures imply learning but do not directly indicate what the student actually learned. As such, direct measures provide insight about actual student learning. However, a direct measure is only as good as the assessment method used to measure it. First, the work that is evaluated should enable students to demonstrate the competencies expressed in the outcomes. And secondly, criteria by which the student work will be evaluated should be articulated and ideally arrived at by consensus. A rubric best captures these elements.

Below is a table that provides samples of direct and indirect methods of assessment often used at the course level and possible assessment methods. Both are data entry fields required in Tracdat/ Improve.

**SAMPLES OF DIRECT AND INDIRECT ASSESSMENT METHODS  
AT THE COURSE LEVEL**

Direct or Indirect	Assessment Method Category (i.e. major assignment or activity)	Possible Assessment Method (i.e. scoring system applied to the major assignment or activity)
D	Essay/ Research Paper	3 or 4 Point <a href="#">Analytic</a> Rubric
D	Presentation or Debate	3 or 4 Point <a href="#">Analytic</a> Rubric
D	Project	3 or 4 Point <a href="#">Analytic</a> Rubric
D	Performance	4 Point <a href="#">Holistic</a> Rubric
I	Self-Reflective Survey	3+ items per SLO with a 5 point <a href="#">Likert</a> Scale
D/I	Group-work	Observation of group dynamics using a 3 Point Holistic Rubric or 10 point Checklist
I	Learning Center or Lab Hours	Total Number of Hours Attended in a Semester
D	Portfolio	3 or 4 Point Holistic Rubric

D	Major Homework Assignment	8 Point Checklist
D	Quiz/Exam/Final	3 questions per SLO and/or short essay/ case study analysis
I	Focus Groups	Extract recurring themes that emerge from responses
D or I	Outside-of-class activity	5 Point Checklist

In the appendix to this section, you'll find two additional tables. The first table highlights the pros and cons of a variety of direct and indirect measures that can be used at one or more levels ([Appendix G](#)). The second table provides a list of possible choices of direct and indirect measures of student learning at the course, program, student services, and institutional levels ([Appendix H](#)). These tables suggest a wide variety of student activities and assignments but are not exhaustive lists.

## **ASSESSING AT THE COURSE LEVEL**

### **1) CREATING A THREE-YEAR ASSESSMENT CALENDAR**

All active courses should be assessed at regular intervals. Each instructional department should arrange all active courses on a three-year assessment cycle using the template on the [SLOAC website](#). In essence, 1/3 of all departmental courses should be assessed each year. Your dean will work with you to identify courses that aren't offered every semester, as well as courses you may want to bank or delete. Your three-year calendar should be submitted to participating department faculty members, your Dean, and the Office of Planning, Research and Institutional Effectiveness. The schedule will be posted on the SLOAC website for easy accessibility.

Please note that the template includes a schedule of ISLO assessment in the bottom row. If one of your courses maps up to a given ISLO, schedule its assessment the same semester as the ISLO assessment since you may be asked to participate in its assessment. Thus in one fell swoop, you'll be able to concurrently conduct a course level and ISLO assessment.

## **2) USING TRACDAT/IMPROVE TO DEVELOP A COURSE LEVEL ASSESSMENT PLAN AND DOCUMENT RESULTS**

Now that you have created a three-year assessment calendar and established SLOs for all active courses, you'll need to create an assessment plan for each course. An assessment plan lists your SLOs and identifies your assessment methods, scoring methods, and minimum acceptable performance for each SLO. Ideally the student work that is assessed counts toward the final grade and aligns with one or more of the SLOs. For more efficient assessment, you may want to identify, revise or create a major assignment that enables you to assess all of the SLOs; this approach is recommended but not required.

Your assessment plan is created by entering information in an online platform called Tracdat/Improve. Tracdat/Improve was purchased by the District in 2010 and serves as the central repository for all the assessment plans and assessment results. It is designed to facilitate and manage all the phases of the assessment cycle. Each department has [a representative specially trained on Tracdat/Improve](#) who can help you create your assessment plan. You'll also find a link to a Tracdat/Improve user guides on the Skyline College SLOAC website.

Shown below are the six core elements of a course level assessment plan that you'll be asked to complete on Tracdat/Improve. Answering these core questions in advance will help you move through the process of creating an assessment plan:

1. **Course Outcome Name**

- \* a short-hand title for the student learning outcome

2. **Course Outcome**

- \* what the student is expected to do and/or know at the end of the course

3. **Assessment Method Category**

- \* the type of major assignment or activity that will be used for assessment (e.g. essay, exam, performance, portfolio, presentation, etc.)

#### 4. Assessment Method

\* a description of the assignment or activity as well as the scoring method that will be applied and used to gather data (e.g. a rubric, check list, Likert scale, etc.)-  
- Only a brief description fits directly in Tracdat/Improve, but any details, a copy of the assignment or rubric as the students would see it, may be loaded into the document repository. Uploaded documents will be available as hyperlinks on the assessment report.

If using an exam or survey, identify which questions apply to which SLOs. Similarly, if you are using a rubric, indicate which parts of the rubric apply to which SLOs.

If sampling, determine procedures in advance to ensure a sufficient random sample.

EXAMPLE:

*Final essay scored with analytic rubric, specifically in the areas of critical thinking and development.*

#### 5. Success Criterion

\* the benchmark level of student achievement that is desired-- What are the performance standards that determine whether or not a student has achieved a given level of knowledge or skill proficiency. How do you know when a student has achieved the knowledge, skill, or attitude the SLO seeks to impart?

These questions can be addressed by writing a performance criteria statement that specifies a minimum score expected or accepted for the intended SLO. Note that this statement may specify proficiency levels for the individual student (for grading purposes) as well as for the assessment sample as a whole.

EXAMPLES:

*Using a five point analytic rubric, at least 75% of students will earn a minimum of 20 points on the final essay.*

*Using a four point analytic rubric, the class will average 2.5 or greater in each category.*

*Using a four point analytic rubric, at least 75% of students will score at least “adequate” on the thesis, organization, development, and grammar parts of the rubric.*

*At least 70% of the class will correctly answer the three common multiple choice questions that are embedded in every section’s final exam.*

## **6. Schedule (optional)**

\* which semester and year this course will be assessed

The semester before the scheduled assessment, you may want to run a report that compiles all this information into a single assessment plan to distribute to colleagues teaching different sections of the course. Your colleagues will be able to plan their courses accordingly, embedding assessment assignments into their courses so that they also can be used for grading purposes.

With your assessment plan written and stored on Tracdat/Improve, you are now ready to apply your assessments in the classroom, gather the results, and record them on Tracdat/Improve. Your department Tracdat/Improve representative can help you record your results.

## **3) COMPLETING AN ASSESSMENT CYCLE**

Drafting SLOs and assessing are only the beginning; the substance in assessing lies primarily in analyzing the data and crafting an action plan, should students fall below the benchmark established in the success criteria.

Thus, to complete the assessment cycle, first analyze the data with your colleagues, considering the following questions.

- In which areas did students excel?
- What issues and needs were revealed?
- How do the results compare to any baseline or benchmark data previously collected?
- What additional insights can you gain from the results?
- Did the assessment work, and if not, what needs to be revised?

See [Appendix J](#) for tips on configuring and analyzing assessment data for rubrics, pre/post tests, surveys, and focus groups. This data should be distributed to faculty for discussions during departmental meetings. The analysis should be entered in to Tracdat/Improve; the data also can be uploaded and configured in to a four-column report for future reference.

Based on your analysis of the assessment results, craft an “action plan” with your colleagues: what changes to pedagogy or assessment are warranted, and/or what additional resources are needed to implement these changes and others. See [Appendix I](#) for a useful rubric to assess your assessment cycle.

An effective action plan should:

- Address assessment results;
  - specific actions plans are connected to specific SLOs and assessment results
- Provide specifics so that it is clear what will take place;
  - a plan includes who, what, when & how
- Inform the next cycle of assessment;
  - your next assessment might measure the effectiveness of your action plan to impact student learning

See [Appendix K](#) for action plan examples.

Tracdat/Improve offers action plan options, though the list is hardly exhaustive. Among the possibilities are:

- Use new or revised teaching methods;
- Engage in professional development/ consult with the CTTL;
- Reconfigure student support service;
- Conduct further assessment;
- Develop new evaluation/ assessment methods;
- Request purchase of new equipment or supplies;
- Make staffing changes;
- Revise course sequence or prerequisites;
- Review course outline of record or syllabus.

Any proposed changes in assessment, pedagogy, or plans to request additional resources should be recorded on [Tracdat/Improve](#) under “Action Plan,” and the [annual program planning document](#) or the [comprehensive program review](#).

The outcomes assessment model is based on continuous dialogue among faculty to ensure a systematic, ongoing cycle of assessment. One stage of the cycle is only “complete” after the results are documented, analyzed, and potential changes are discussed, recorded, and followed up on. The next stage then begins to ensure an ongoing process of strengthening student learning. Ideally assessments will be repeated to compare one year’s results to another, but a completely different assessment method may be used if it’s in need of improvement.

#### **4) USING TRACDAT/IMPROVE TO GENERATE ASSESSMENT RESULTS REPORTS**

Tracdat/Improve has the ability to generate a variety of reports, including assessment results reports for a particular course, several courses, or an entire department. (Departments are called “Units” on Tracdat/Improve.) These reports display SLOs along with a summary of assessments results and any proposed action plans. Having a summary view of assessment results is extremely useful for record keeping, comparing results over time, and facilitating discussion with your colleagues. Complete directions for running reports can be found on the College SLOAC Tracdat/Improve website.

#### **ASSESSING AT THE INSTRUCTIONAL PROGRAM LEVEL**

All degree and certificate bearing academic programs at Skyline College have established Program Student Learning Outcomes (PSLOs), which are recorded on Tracdat/Improve and published in the College Catalog and on the departmental website. PSLOs are statements (typically four or fewer) that summarize the essential skills, knowledge and attitudes that a student gains after completing the program. PSLOs can be assessed multiple ways, but the most common at Skyline College is by analyzing course level assessment result patterns.

To examine how course level SLOs help students fulfill the PSLOs, align and then apply course level assessment data to the PSLOs. This process is known as “rolling up” course level assessment to program level assessment. For this “rolling up” to happen, faculty and staff need to have “mapped” course level SLOs to PSLOs on Tracdat/Improve. This mapping identifies which course level SLOs are central for students to achieve the PSLOs. Reports can be run with assessment results from all course SLOs that map up to the PSLOs.

Filters can be used to narrow the focus, decreasing the length of the report. For example, when a concerted effort was taken to map curriculum to indicate in which courses PSLOs are “introduced,” provided opportunities to “practice,” or demonstrate “mastery,” then departmental faculty may opt to narrow the focus to a few courses in which they can ascertain how students fare in introductory versus higher level courses in which they are expected to demonstrate mastery. Having a common rubric to assess student work in these courses can provide a common point of comparison. (For more information on curriculum mapping, see [Section Two](#).)

Programs have the option of conducting other types of program level assessment instead of, or in addition to, the rolling up process. Among the options, programs may wish to administer an exit survey; facilitate a focus group with graduates or certificate recipients; evaluate a culminating experience such as a capstone project, performance, or portfolio; tabulate the percentage of students who pass their boards/ industry certifications; tabulate the percentage of students who are placed in the field for which they received a degree/certificate, etc.

After faculty analyze and discuss the results, important findings and any needed action plans are recorded on Tracdat/Improve, thus completing the PSLO assessment cycle. If analyzing course level assessment results that roll up to the PSLO, analysis should center on any patterns that emerge regarding how well the course curriculum contributes to student success at the program level. Submit this PSLO report as an attachment to the [Comprehensive Program Review](#).

For more examples of program level assessment methods, consult [Appendix H](#).

## **ASSESSING AT THE INSTITUTIONAL LEVEL**



Graphic designed by Skyline College student Livius Darmawan

Skyline College shaped, adopted, and published in the College Catalog five ISLOs, which are derived from the AA/AS degree requirements: Citizenship, Critical Thinking, Effective Communication, Information Literacy, and Lifelong Wellness.

[The ISLOs are assessed with a direct and indirect measure.](#) The direct measure involves the use of a common rubric, which enables faculty to have a common language and criteria around assessment. Each of the ISLOs is scheduled to be assessed on a given semester, with one to two per academic year, until each of the five is assessed by faculty across the disciplines. Select faculty whose courses map up to the ISLO that is scheduled to be assessed that semester use the common rubric to evaluate students' work within their disciplinary framework. The data resulting from the assessment is then analyzed and discussed by the Institutional Effectiveness Committee and departments as they complete their program review. A campus-wide forum is also held on an annual basis to discuss ISLO assessment results.

The indirect measure is through the Community College Survey of Student Engagement (CCSSE). The CCSSE is a tool used to measure how students perform on standards relative to student engagement. The data resulting from this assessment is analyzed and discussed by the Institutional Effectiveness Committee, and various participatory governance committees.

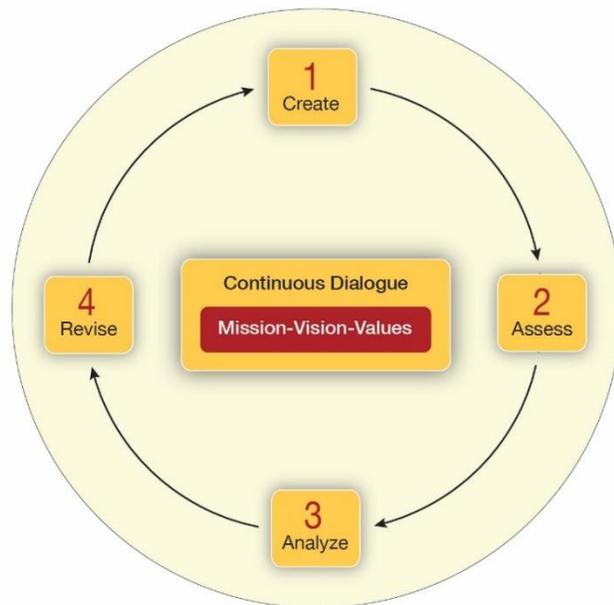
# **S**ECTION FOUR: *STUDENT SERVICE PROGRAM ASSESSMENT*

## **OVERVIEW**

This section describes Skyline College's approach to student learning outcomes assessment for student service programs. You will learn about ways to generate PSLOs and how to assess them, including the benefits of employing direct measures and how indirect measures can complement those efforts.

Special emphasis is given to developing a three-year assessment

calendar, and using Tracdat/Improve to create an assessment plan, record your results and action plans, and generate assessment reports.



## **WHAT ARE STUDENT SERVICE PROGRAM STUDENT LEARNING OUTCOMES (PSLOs), AND HOW CAN THEY BE ASSESSED?**

All major student service areas at Skyline College have established Program Student Learning Outcomes (PSLOs), which are recorded on Tracdat/Improve and published on the service area's website. PSLOs are statements (typically four or fewer) that summarize the essential skills, knowledge and attitudes that a student gains after utilizing the service. Expressed using active verbs, they are assessable and measurable.

### **WRITING STUDENT SERVICE PSLOs**

While students gain a wide range of competencies from utilizing a student support service, the intent of student service PSLOs is to capture those that the service area prioritizes. They should serve to inform how primary services are provided, and be something that staff evaluate and review regularly.

They can be generated from the following:

- Observable student actions
  - Existing data, especially data that may be required by external agencies/ government for reporting purposes (e.g., % of students who persist from one semester to the next)
  - Tasks (e.g., # of students who use the various services within the area, such as Financial Coaching and the Food Bank)
  - Assignments/Projects/Tests (e.g., assessment of a sample of students' research papers using a rubric)
- Intent of the services provided (e.g., skills, tools and/or content that your area provides) or goals
- How the service area supports students' mastery of one or more of the ISLOs

An example from Student Services is from the Admissions and Records Office. They aligned their PSLOs with the Skyline College Promise's intention to "Get In, Get Through, and Graduate on Time." What differences do you note between their goals and the outcomes?

#### Program Goals:

- Operate with integrity and from a "students first" perspective.
- Provide efficient processes, including via the use of technology, to enable students to matriculate through the College and attain their educational goals.

- Safeguard student records.

Program SLOs:

- High school students in the Concurrent Enrollment Program will be able to successfully complete the admissions process. [Get in]
- Students are able to successfully navigate and resolve their registration conflicts. [Get Through]
- Students will be able to self-assess their degree/certificate progress. (Graduate on Time)

The **program goals** are what the staff seek to attain. The **PSLO** reverses the perspective, instead making explicit what *students* should be able to do as a result of utilizing the program services. See [Appendix F](#) for the Student Services Learning Program Student Learning Outcomes Checklist to evaluate the quality and appropriateness of your PSLOs.

### **MAPPING STUDENT SERVICE PSLOs To INSTITUTIONAL SLOs**



Graphic designed by Skyline College student Livius Darmawan

An institutional student learning outcome (ISLO) is a knowledge, skill, ability, and/or attitude that students should attain by the end of their college experience. Here at Skyline College, students who complete an

A.A./ A.S. degree and/or transfer preparation should have mastered the following institutional SLOs: Citizenship, Critical Thinking, Effective Communication, Information Literacy, and Lifelong Wellness.

Mapping student service PSLOs with institutional SLOs enables you to identify how your services to students may be contributing to their achievement of these outcomes.

To map your course SLOs to ISLOs, using Tracdat/Improve is easiest. But the chart in the appendix is a starting point if you'd like to reference a print copy. Input the PSLOs at the top, and identify which PSLOs are "central" to students achieving the ISLO. A PSLO is "central" if it is a primary intent of the student service area, and students' attainment of the related ISLO can be observed or assessed by students via a survey, interviews, or focus groups. Leave the space blank if the institutional SLO does not apply.

See [Appendix E](#) for the matrix.

## **DIRECT AND INDIRECT MEASURES TO ASSESS STUDENT SERVICE PSLOs**

As with instructional assessment, staff can employ direct or indirect measures to assess the PSLOs.

- Direct measures are methods of collecting information about student learning that require students to directly display their skills, knowledge and attitudes. Direct measures for student service areas may involve gathering pertinent statistics from service area or college records. Examples are the number or percentage of students using services and/or demonstrating a certain desired behavior (e.g., # of federal and state grants awarded; % of students who use their accommodations, etc.).
- Indirect measures are methods of collecting information about student learning that ask students to reflect on their learning rather than demonstrate it. Indirect measures often involve collecting opinions and perceptions from surveys, interviews and/or focus groups.

A challenge for many student service programs with assessing PSLOs is that the students' participation is irregular, unlike a captive group of students regularly attending a class. As a result, student service areas may default to assessing via a survey; however, indirect measures such as surveys may be limited since they're based on students' self-assessments. When possible, it's best to conduct assessments with direct measures, such as observations of student behavior, and use indirect measures to further account for student behaviors. For example, data may show that the number of students accessing a given service fluctuates; a

focus group may be employed to ascertain why students aren't using a given service. For more information about potential student service assessments, see [Appendix H](#).

## **ASSESSING AT THE STUDENT SERVICE PROGRAM LEVEL**

### **1) CREATING A THREE-YEAR ASSESSMENT CALENDAR**

Student service areas are expected to assess every PSLO at least once within the College's established three-year cycle. But since many student service areas analyze and discuss results annually or more, they should schedule them accordingly. Insights should be recorded in Tracdat/ Improve to keep a historical reference and be able to note trends over time. Using the template on the [SLOAC website](#), submit three-year calendars to staff within the student service area, Dean of that area, and the Office of Planning, Research and Institutional Effectiveness. The schedule will be posted on the SLOAC website for easy accessibility.

### **2) USING TRACDAT/IMPROVE TO DEVELOP A PROGRAM LEVEL ASSESSMENT PLAN AND DOCUMENT RESULTS**

Now that you have created a three-year assessment calendar and established PSLOs for your student service area, you'll need to create an assessment plan for each. An assessment plan lists your PSLOs and identifies your assessment methods, scoring methods, and minimum acceptable performance for each PSLO.

Your assessment plan is created by entering information in an online platform called Tracdat/Improve. Tracdat/Improve was purchased by the District in 2010 and serves as the central repository for all the assessment plans and assessment results. It is designed to facilitate and manage all the phases of the assessment cycle. Each student service area has [a representative specially trained on Tracdat/Improve](#) who can help you to document your assessment plan. You'll also find a link to a Tracdat/Improve user guides on the Skyline College SLOAC website.

Shown below are the six core elements of a program level assessment plan that you'll be asked to complete on Tracdat/Improve. Answering these core questions in advance will help you move through the process of creating an assessment plan:

1. **PSLO Name**

\* a short-hand title for the program student learning outcome

2. **PSLO**

\* what the student is expected to do and/or know upon utilization of a student support service

3. **Assessment Method Category**

\* the type of major assignment or activity that will be used for assessment (e.g. existing data, focus groups, survey, participation rate, etc.)

4. **Assessment Method**

\* a description of the activity or data source-- Only a brief description fits directly in Tracdat/Improve, but any details, a copy of the focus group questions/ survey/ etc., may be uploaded into the document repository. Uploaded documents will be available as hyperlinks on the assessment report.

If you are using a focus group or survey, identify which questions apply to which PSLOs.

EXAMPLE:

*Report from SAP about overall course success rates for participating students*

*OR*

*Survey questions 3, 5, and 8 apply to PSLO 1*

5. **Success Criterion**

\* the benchmark level of student achievement that is desired-- What are the performance standards that determine whether or not a student has achieved a PSLO? How do you know when a student has achieved the knowledge, skill, or attitudinal disposition the PSLO seeks to impart?

These questions can be addressed by writing a performance criteria statement that specifies a minimum score expected or accepted for the intended PSLO. Or for qualitative data from focus groups or open-ended survey questions, what insights do you hope will emerge?

EXAMPLES:

*50% of eligible students will use their test accommodations. OR*

*Students who are accessing career services resources will be proportional to the diverse Skyline College student population.*

#### **6. Schedule (optional)**

\* which semester and year this PSLO will be assessed

With your assessment plan written and stored on Tracdat/Improve, you are now ready to apply your assessments, gather the results, and record them on Tracdat/Improve. Your department Tracdat/Improve representative can help you record your results.

### **3) COMPLETING AN ASSESSMENT CYCLE**

Drafting PSLOs and assessing are only the beginning; the substance in assessing lies primarily in analyzing the data and crafting an action plan, should students fall below the benchmark established in the success criteria.

Thus, to complete the assessment cycle, first analyze the data with your colleagues, considering the following questions.

- In which areas did students excel?
- What issues and needs were revealed?
- How do the results compare to any baseline or benchmark data previously collected?
- What additional insights can you gain from the results?
- If qualitative data from focus groups or open-ended survey questions, what themes emerge?
- Did the assessment work, and if not, what needs to be revised?

See [Appendix J](#) for tips on configuring and analyzing assessment data.

Based on your analysis of the assessment results, craft an “action plan” with your colleagues: what changes to program offerings or assessment are warranted, and/or what additional resources are needed to implement these changes and others. See [Appendix I](#) for a useful rubric to assess your assessment cycle.

An effective action plan should:

- Address assessment results;
  - specific actions plans are connected to specific PSLOs and assessment results
- Provide specifics so that it is clear what will take place;
  - a plan includes who, what, when, where, & how
- Inform the next cycle of assessment;

- your next assessment might measure your action plan's impact on student learning

See [Appendix K](#) for action plan examples.

Tracdat/Improve offers action plan options, though the list is hardly exhaustive. Among the possibilities are:

- Engage in professional development/ consult with the CTTL;
- Reconfigure student support service;
- Conduct further assessment;
- Develop new evaluation/ assessment methods;
- Request purchase of new equipment or supplies;
- Make staffing changes;

Any proposed action plans to strengthen the student service or plans to request additional resources should be recorded on [Tracdat/Improve](#) under "Action Plan," and the [annual program planning document](#) or the [comprehensive program review](#).

The outcomes assessment model is based on continuous dialogue among staff to ensure a systematic, ongoing cycle of assessment. The cycle is only complete after the results are documented, analyzed, and potential changes are discussed, recorded, and followed up. After a cycle has been completed on a course, the cycle begins again (starting with possibly adjusting the SLOs themselves). Assessments may be repeated to compare one year to another, or a completely different assessment method may be chosen.

#### **4) USING TRACDAT/IMPROVE TO GENERATE ASSESSMENT RESULTS REPORTS**

Tracdat/Improve can generate a variety of reports. Filters can be used to narrow the focus to a particular PSLO or all of the PSLOs, or two years of data analysis for annual planning or the preceding five years leading up to the Comprehensive Program Review. These reports display PSLOs along with a summary of assessments results and any proposed action plans. Having a summary view of assessment results is extremely useful for facilitating discussions with your colleagues and comparing results over time. Complete directions for running reports can be found on the College SLOAC Tracdat/Improve website. They should be uploaded to the [annual program planning document](#) or the [comprehensive program review](#).

## Appendix A: Bloom's Taxonomy

### Cognitive Domain

#### Learning Outcomes Related To Knowledge

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Student remembers 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

Basic  
Knowledge  
Level

More Sophisticated  
Higher Level Thinking  
Critical Thinking

## Psychomotor Domain

### Learning Outcomes Related To Skills

<b>Observe</b>	<b>Model</b>	<b>Recognize Standards</b>	<b>Correct</b>	<b>Apply</b>	<b>Coach</b>
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

Basic Knowledge  
 Basic Skills  
 Level

More Sophisticated Skills  
 Higher Level Abilities  
 Critical Understanding of Performance

## Affective Domain

### Learning Outcomes Related To Attitudes, Behaviors, and Values

<b>Receiving</b>	<b>Responding</b>	<b>Valuing</b>	<b>Organizing</b>	<b>Characterizing</b>
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

Basic Knowledge  
Basic Skills  
Level

More Sophisticated Skills  
Higher Level Abilities  
Critical Understanding of Performance

## Appendix B:

### Objective or SLO, a Practice Exercise

The statements below were written for programs and courses. Analyze the statements to determine whether they are objectives, or student learning outcomes. Write O for objectives and SLO for student learning outcome.

1.	(Public Speaking course) Critically listen to a publicly delivered speech and analyze the credibility of the content and the effectiveness of delivery.
2.	(Fundamental Mathematics) Apply the “Pythagorean theorem” to find any side of a right triangle given the other two sides.
3.	(Music) Successfully perform a selection of choral ensemble pieces in English and other languages in front of a classroom audience.
4.	(Biology) Provide non-biology majors with a solid ground of biological principles.
5.	(Philosophy of Religion) Read and comprehend primary works by (or secondary works about) the central figures in the history of the discipline.
6.	(Physical Education) Improve fitness levels, increase strength and flexibility, and lose body fat through participation in a variety of fitness activities.
7.	(Computer Studies) Cover assembly language programming: addressing; loops; arithmetic, subroutines, stack, recursion; macros; program design and testing; interfacing to high level language.
8.	(Spreadsheets) Create a professional looking spreadsheet using MS Excel spreadsheets which includes accurate functions, charting and is properly formatted adhering to good spreadsheet design.
9.	(Developmental Writing) Demonstrate critical reading, writing, and thinking skills through analysis, synthesis, and evaluation of important ideas from multiple points of view.
10.	(Engineering) Use the techniques, skills, and modern engineering tools necessary for engineering practice to solve a defined engineering problem.

**Answers:**

1. SLO
2. O
3. SLO
4. O
5. O
6. SLO
7. O
8. SLO
9. SLO
10. SLO





### Appendix E:

### Skyline College Institutional Outcomes Mapping

Under each course in which SLO(s) map to the ISLO descriptor, identify the key word of the course SLO(s) as a reminder for which of the SLO(s) apply. Then ask your departmental Tracdat/Improve coordinator to enter the mapping into Tracdat/Improve.

	Course ____, SLO ____	Course ____, SLO ____	Course ____, SLO ____	Course ____, SLO ____	Course ____, SLO ____	Course ____, SLO ____	Course ____, SLO ____	Course ____, SLO ____
<b>Citizenship:</b>	Demonstrate an understanding of their individual role in an interconnected world about a range of global issues.							
	Demonstrate an understanding of how global, national and local organizations, ideas, and issues are interconnected (e.g., social, cultural, economic, political, and environmental).							
	Demonstrate scientific literacy concerning a range of global issues.							
	Demonstrate awareness and sensitivity about how their perspectives are shaped by their experiences and cultural values.							
	Articulate similarities and contrasts among cultures, demonstrating knowledge of and sensitivity to various cultural values and issues.							
	Recognize and apply ethical perspectives.							
	Facilitate a positive, supportive group environment through demonstrated collegiality and leadership.							
	Demonstrate commitment to active citizenship.							
<b>Critical Thinking:</b>	Support claims with relevant and credible evidence.							
	Develop awareness of and ability to respond to bias.							

	Apply accurate and logical analysis to achieve desired outcome.									
<b>Effective Communication:</b>	Analyze and comprehend oral, written, and other sensory information.									
	Effectively construct and deliver a message to express ideas through speaking or writing.									
	Provide appropriate responses to establish shared meaning.									
	Demonstrate appropriate social skills in group settings, being receptive to alternative ideas and feelings.									
<b>Information Literacy:</b>	Effectively locate and access information in numerous formats using a variety of appropriate search tools.									
	Evaluate the relevance, quality, and credibility of a wide variety of information sources using critical thinking and problem solving skills.									
	Use information ethically and legally.									
<b>Lifelong Wellness:</b>	Demonstrate an understanding of physical fitness and its role in lifelong wellness.									
	Take responsibility for identifying personal needs, determining resources, and accessing appropriate services for academic success.									
	Exhibit resilience by embracing effort as a path to mastery, persisting in the face of setbacks, and acknowledging and overcoming challenges.									
	Develop attitudes central to lifelong learning: openness, flexibility, intellectual curiosity, and a broad perspective that values diversity of thought.									

**Appendix F:**  
**Student Services Program Student Learning Outcomes Checklist**

	<b>Yes</b>	<b>No</b>
Do the PSLOs state what the learner can <i>do</i> upon successful utilization of the student services?		
Are the PSLOs expressed with active verbs, using Bloom’s Taxonomy as a guideline? ( <a href="#">See Appendix A.</a> )		
Are the PSLOs important overarching concepts, versus small lessons or discrete objectives?		
Can the PSLOs be assessed (observable as a behavior, attitude, skill or discrete usable knowledge OR self-assessable by the student)?		
Will students understand the PSLOs?		
Do they align with one or more of the ISLOs?		
If “no” in any category, what will you revise?		

## Appendix G:

### Student Activities and Assignments—Pros and Cons for Assessment

Student Activity/ Assignment	Data Direct or Indirect	Domain Cognitive, Psychomotor, or Affective	Formative or Summative	Bloom's Knowledge, Comprehension, Application or Analysis/ Synthesis/Eval	Pros	Cons
Abbreviation	D or I	C, P or A	F or S	K, C, A, ASE		
Multiple Choice Exam	D	C	F & S	K, C If carefully constructed A, S, & E	easy to grade; objective	reduces assessment to multiple choice answers
Licensing Exams	D	C	S	K, C, A	easy to score and compare	no authentic testing, may be outdated
Standardized Cognitive Tests	D	C	S	K, C, A	comparable between students	heavily dependent on exposure to topics on test
Checklists	D	C, A, P	F, S	variable	very useful for skills or performances; students know exactly what is missing	can minimize large picture and interrelatedness; evaluation feedback is basically a yes/no - present/absent - without detail
Essay	D	C, A	F, S	K, C, A, ASE	displays analytical and synthetic thinking well	time consuming to grade, can be subjective

<b>Student Activity/ Assignment</b>	<b>Data</b> Direct or Indirect	<b>Domain</b> Cognitive, Psychomotor, or Affective	<b>Formative or Summative</b>	<b>Bloom's</b> Knowledge, Comprehension, Application or Analysis/ Synthesis/Eval	<b>Pros</b>	<b>Cons</b>
Abbreviation	D or I	C, P or A	F or S	K, C, A, ASE		
Case Study	D	C, A	F, S	K, C, A, ASE	displays analytical and synthetic thinking well; connects other knowledge to topic	creating the case study can be time consuming; dependent on student knowledge from multiple areas
Problem Solving	D	C	F, S	K, C, A, ASE	displays analytical and synthetic thinking well; authentic if real world situations are used	difficult to grade due to multiple methods and potential multiple solutions
Oral Speech	D	C	F, S	variable K, C, A, ASE	easily graded with rubric; allows other students to see and learn what each student learned; connects general education goals with discipline-specific courses	can be difficult for ESL students; stressful for students; takes course time; must fairly grade course content beyond delivery

<b>Student Activity/ Assignment</b>	<b>Data</b> Direct or Indirect	<b>Domain</b> Cognitive, Psychomotor, or Affective	<b>Formative or Summative</b>	<b>Bloom's</b> Knowledge, Comprehension, Application or Analysis/ Synthesis/Eval	<b>Pros</b>	<b>Cons</b>
Abbreviation	D or I	C, P or A	F or S	K, C, A, ASE		
Debate	D	C, A	F, S	K, C, A, ASE	provides immediate feedback to the student; reveals thinking and ability to respond based on background knowledge and critical thinking ability	requires good rubric; more than one evaluator is helpful; difficult for ESL students stressful; for students takes course time
Product Creation & Special Reports	D	C, P, A	F, S	variable K, C, A, ASE	students can display skills, knowledge, and abilities in a way that is suited to them	must have clearly defined criteria and evaluative measures; "the look" cannot override the content
Flowchart or Diagram	D	C	F, S	C, A, ASE	displays original synthetic thinking on the part of the student; perhaps the best way to display overall high level thinking and articulation abilities	more difficult to grade, requiring a checklist or rubric for a variety of different answers; difficult for some students to do on the spot

<b>Student Activity/ Assignment</b>	<b>Data</b> Direct or Indirect	<b>Domain</b> Cognitive, Psychomotor, or Affective	<b>Formative or Summative</b>	<b>Bloom's</b> Knowledge, Comprehension, Application or Analysis/ Synthesis/Eval	<b>Pros</b>	<b>Cons</b>
Portfolios	D	C, P	S	variable	provides the students with a clear record of their work and growth; best evidence of growth and change over time; students can display skills, knowledge, and abilities in a way that is suited to them; promotes self-assessment	time consuming to grade; different content in portfolio makes evaluating difficult and may require training; bulky to manage depending on size
Exit Surveys	D, I	A	S	ASE	provides good summative data; easy to manage data if Likert-scaled responses are used	Likert scales limit feedback; open-ended responses are bulky to manage
Performance	D	C, P	F, S	variable K, C, A, ASE	provides best display of skills and abilities; excellent opportunity for peer review; students can display skills, knowledge, and abilities in a way that is suited to them	stressful for students; may take course time; some students may take the evaluation very hard - evaluative statements must be carefully framed
Capstone project or course	D	C, P, A	F, S	ASE	best method to measure growth over time with regards to a course or program - cumulative	focus and breadth of assessment and understanding all the variables to produce assessment results are important; may result in

<b>Student Activity/ Assignment</b>	<b>Data Direct or Indirect</b>	<b>Domain Cognitive, Psychomotor, or Affective</b>	<b>Formative or Summative</b>	<b>Bloom's Knowledge, Comprehension, Application or Analysis/ Synthesis/Eval</b>	<b>Pros</b>	<b>Cons</b>
						additional course requirements; requires coordination and agreement on standards
Team Project	D	C, A	F, S	variable K, C, A, ASE	connects general education goals with discipline-specific courses	must fairly grade individuals as well as team; grading is slightly more complicated; student interaction may be a challenge
Reflective self-assessment essay	D, I	C, A	S	ASE	provides invaluable ability to evaluate affective growth in students	must use evidence to support conclusions, not just self-opinionated assessment
Satisfaction and Perception Surveys	I	C, P, A	S	C, A, ASE	provides good indirect data; data can be compared longitudinally; can be used to determine outcomes over a long period of time	respondents may be influenced by factors other than those being considered; validity and reliability must be closely watched

Chart compiled by Bakersfield's Janet Fulks, Crafton Hills' Gary Williams, and recently retired Long Beach City College's Fred Trapp

## Appendix H:

### Samples of Direct and Indirect Measures of Student Learning at the Course, Program, Institutional and Student Services Levels

Level	Direct Measures	Indirect Measures
Course	Essays/ Research Papers Direct observations of oral presentations/performances/demonstrations Video/audio observation Pre/ Post-test Major examinations or assignments Completion Accuracy Observations of field work, internship performance, or service learning Work groups/ table top exercises Case study analysis Portfolios of student work Goal Completion Juried Evaluators Projects	Course evaluations Test blueprints (outlines of the concepts and skills covered on tests) Percent of class time spent in active learning Number of student hours spent on service learning Number of student hours spent on homework Number of student hours spent at intellectual or cultural activities related to the course Number of student hours spent in contact with faculty outside the classroom Other: _____
Program	Portfolios Capstone projects, theses, exhibits, or performances Pass rates or scores on licensure, certification, or subject area tests Student publications or conference presentations Employer and internship supervisor ratings of students' performance Other: _____	Focus group interviews Registration or course enrollment data Department or program review data Employer or alumni surveys Student perception surveys Proportion of upper-level courses relative to the same program at other institutions Job placement rates Number of faculty hours spent collaborating Internship evaluation Retention studies Transfer rates Graduation rate Course success rate Diversity statistics Other: _____

Level	Direct Measures	Indirect Measures
Institution	<p>Performance on tests of writing, critical thinking, or general knowledge</p> <p>Rubric (grading scale) scores for class assignments in GE, interdisciplinary core courses, or other courses required by all students</p> <p>Performance on achievement tests</p> <p>Explicit self-reflections on what students have learned as a result of required community service or other experiences</p> <p>Other: _____</p>	<p>Locally-developed, commercial, or national surveys of student perceptions or self-report activities (e.g., National Survey of Student Engagement)</p> <p>Transcript studies that examine patterns and trends of course selection and grading</p> <p>Annual reports including institutional benchmarks</p> <p>Focus group evaluation</p> <p>Tracking Alumni honors/awards</p> <p>Retention studies</p> <p>Study abroad rates</p> <p>Transfer rates</p> <p>Graduation rate</p> <p>Course success rate</p> <p>Diversity statistics</p> <p>Job placement statistics</p> <p>Other: _____</p>
Student Services	<p>Locally developed tests</p> <p>National standardized tests (e.g. CCSEQ, LASSI)</p> <p>National licensure exam</p> <p>Pre and post tests</p> <p>Evaluation of student work samples (portfolios, capstone projects, etc.)</p> <p>Evaluation of student performance on a case study or problem analysis</p> <p>Observation and evaluation of student behavior</p> <p>Externally reviewed internship</p> <p>Other: _____</p>	<p>Home grown or standardized surveys (mailed, online, phone)</p> <p>Focus groups</p> <p>Staff and student journals</p> <p>Academic performance after transfer</p> <p>Exit interviews</p> <p>SAP Data</p> <p>Usage rates</p> <p>Student Satisfaction studies</p> <p>Other: _____</p>

**Appendix I:**  
**Rubric to Evaluate Assessments**

	<b>Effective</b>	<b>Developing</b>	<b>Ineffective</b>
<b>Alignment of Method/ Assignment to SLO(s)</b>	Connection between method/ assignment and SLO(s) is clear.	Method/ assignment is not clearly linked to SLO(s) achievement.	Method/ assignment misses outcomes or is not relevant to SLO(s).
<b>Degree of Higher-Order or “Critical Thinking” Elicited</b>	Students analyze, apply, and/or synthesize information to support their purpose.	Students explain and/or summarize information but with no purpose beyond demonstrating comprehension.	Students regurgitate isolated facts with little to no personal assimilation.
<b>Useful</b>	Assessment plan is likely to yield information useful for making improvements.	Assessment plan is not specifically targeted toward finding areas of improvement.	Areas of improvement cannot be associated with the assessment plan.
<b>Dialogue Generated</b>	Faculty/ staff almost always collaborate on creating assessments, implementing them, and/or analyzing the results.	Faculty/ staff sometimes collaborate on creating assessments, implementing them, and/or analyzing the results.	Faculty/ staff rarely collaborate on creating assessments, implementing them, and/or analyzing the results.
<b>Ability to Keep the Assessment Cycle Going into Perpetuity</b>	The entire assessment cycle is manageable and replicable.	Some of the assessment cycle is manageable and replicable.	The assessment cycle is overwhelming in scope.
<b>Engagement in SLOs and Assessment</b>	Enough faculty/ staff assess to shape and consistently apply departmental evaluation criteria.	Usually enough faculty/ staff assess to shape and consistently apply departmental evaluation criteria, but some assess more frequently than others, and/or some don't assess at all.	Even when multiple faculty/ staff teach a course and/or oversee a student service area, only one person assesses.

## Appendix J:

### Tips on Configuring and Analyzing Assessment Data

Drafting SLOs and gathering assessment results are only the beginning; the substance in assessing lies primarily in analyzing the data and crafting an action plan, should students fall below the benchmark established in the success criteria. Thus, to complete the assessment cycle, you'll need to work with your colleagues to analyze the data and draw conclusions from the findings.

- In which areas did students excel?
- What issues and needs were revealed?
- How do the results compare to any baseline or benchmark data previously collected?
- What insights can you gain from the results?
- Did the assessment work, and if not, what needs to be revised?

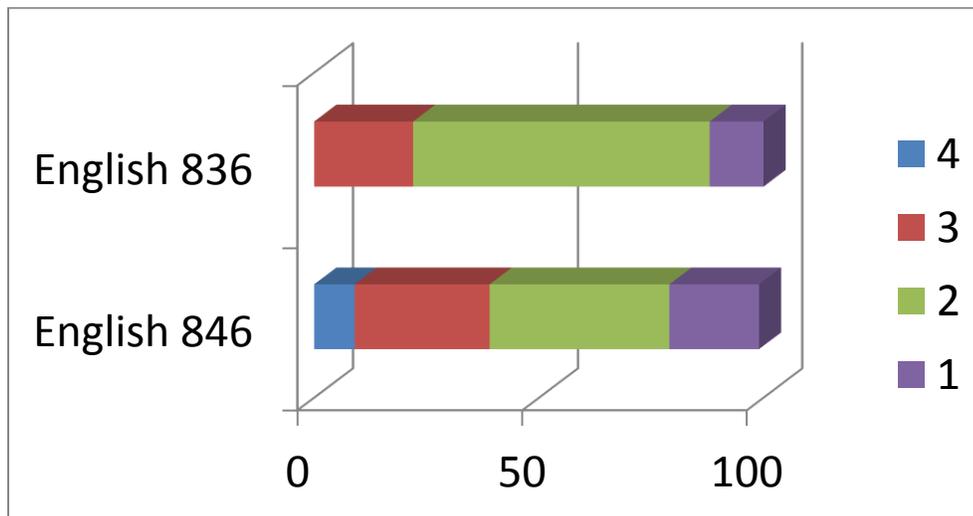
Below are some useful tips and examples that have emerged from current assessment practices.

#### **RUBRICS**

Assessing multiple SLOs with one major project or activity and evaluating it with a rubric that encompasses all of the SLOs is efficient use of time and resources. The rubric also articulates what distinguishes the different levels of competency, which is useful for consistent grading and can inform students how their work is being evaluated.

- Be mindful of the SLOs as you create the rubric. Indicate which parts of the rubric pertain to which SLOs in your assessment plan.
- Create an excel spreadsheet to enter the students' scores for each part of the rubric. The first column will be which student (e.g. 1, 2, 3, etc.), and the subsequent columns will be each of the rubric's criteria (i.e., thesis).
- To analyze the data, you can do so in two ways:
  - Calculate the average by using the formula. Compare the average score with the success criterion (e.g. The class will average 2.5 or greater.).
  - Determine the percentage of students that scored 2,3, or 4 if those are passing scores, and then compare it against the success criterion (e.g., 75% of students will score at least 2, "adequate," on the thesis.)

- This way of analyzing data enables you to see which skills students most struggled with. For instance, you may find that 98% of students had at least a 2.2 average, and yet the vast majority only scored 2. The graphic function on Powerpoint really helps to differentiate how students fared. For instance, the graphic below shows how well the students' thesis was on an English assessment.



### PRE/POST TESTS

Pre/post tests are a very useful means to measure how much students gained over the course of the semester since you document their starting and end point. The pre-test also helps students know what to anticipate and prioritize for the remainder of the semester.

- Be mindful of which test questions pertain to which SLOs in your assessment plan. Faculty using this strategy typically assign two to three questions per SLO, and all faculty teaching the course that semester include those common questions on their exam(s).
- If you assign multiple choice, matching, and/or true/false questions on these tests, use scantrons so as to tabulate students' results.
- Your success criteria may simply note that you are looking for an overall increase in the percentage of students who answer the designated questions correctly, such as a 10% increase. And/or you may want to decide which percentage of students overall answered the questions correctly, in addition to ensuring that the percentages from the post-test are higher than the pre-tests.
- The challenge that has emerged from using this assessment strategy is comparing the students who started the course with the students that persist until the end, when the post-test is typically

administered. To address this issue, you may want to consider using a scan-tron with students' names on both the pre and post-test so that you can remove the pre-tests from students who didn't persist.

### **SURVEYS**

Surveys can be used to develop students' meta-cognitive awareness, as they're prompted to evaluate their competencies. The primary drawback is that students are assessing themselves, as opposed to a student demonstrating their competencies. In addition to home-grown surveys within a respective department, the Office of Planning, Research, and Institutional Effectiveness (PRIE) may have college-wide surveys they administered (such as the Community College Survey of Student Engagement) whose results are relevant to a particular instructional area.

Surveys also can be used to evaluate student services, such as which services they were aware of, which they used, how frequently, and how satisfied they were with each service. PRIE may have college-wide surveys they administered whose results are relevant to a particular service area.

- Be mindful of the SLOs as you create the survey. Indicate which questions from the survey pertain to which SLOs in your assessment plan.
- The PRIE can help you to design and administer your survey. Easiest is to administer it with a scantron or via the internet, such as through NoviSurvey, for which the PRIE has a license.
- To analyze responses to multiple choice questions, you may want to determine the percentage of students who marked 2, 3, or 4 if all those scores suggest a level of competency in the knowledge, skill, and/or attitude.
- To analyze responses to open-ended questions, which may have captured an insight that your multiple choice questions didn't, you'll need to identify the themes that emerge from students' responses.

### **FOCUS GROUPS OR STRUCTURED GROUP INTERVIEWS (FOR ASSESSING PSLOs OR STUDENT SERVICES SLOs)**

Typically limited to six- to- ten participants, focus groups/ structured group interviews work especially well to gain insights about a program and/or service as a whole. Open-ended questions can address curriculum, such as how well the required coursework prepared students for higher level courses, a position in that field, and/or transfer. Or they can pertain to advising, such as characterizing their advising experiences in the program, what they found useful, and what—if anything, they suggest be changed.

In focus groups, the facilitator may be more flexible and depart from the script of questions so as to follow promising leads that emerge from the conversation. In contrast, the facilitator in a group interview poses only the pre-generated questions. A focus group tends to yield a more in-depth analysis than a structured group interview.

- Be mindful of the PSLOs as you create the questions, and indicate in your assessment plan which questions pertain to which PSLOs. Get feedback from the Office of Planning, Research, and Institutional Effectiveness (PRIE) to design your questions since the quality of the questions will impact the validity of the responses, and also get feedback about whom to include in the focus group/ structured group interview.
- To analyze responses to open-ended questions, you'll need to identify the themes that emerge from students' responses.

## **Appendix K: Action Plan Examples**

### **EXAMPLE 1**

**SLO:** Students in CLAS 080 will have the skill, knowledge, and confidence to enter CLAS 100.

**Assessment tool:** Survey

**Success criterion:** 70% will strongly agree with Questions 5-9 of the 12 question survey.

**Result:** 60% of students strongly agreed with Q 5, 6, 7, 80% on Q9

**Dialogue:** Faculty reviewed the final exam and the results of the relevant questions addressed in the survey. Reviewing student work confirmed for faculty that students did have a strong grasp of the skills necessary to succeed at the next level. Faculty agree that students are learning course material without an awareness of the skills they were developing and the skills needed at the next level. Faculty decided to increase students' awareness of the course learning outcomes for the course they are enrolled in and explicitly link course assignments to outcomes.

**Action Plan:** The course syllabus will list major assignments that fulfill an SLO under each SLO. Faculty will list the SLO that is being addressed in assignments on assignment handouts. At midterm, students will self-assess their progress in achieving each SLO and indicate how prepared they feel to move on to the next class.

### **EXAMPLE 2**

**SLO:** Students will identify and critically evaluate important ideas in short and book length texts.

**Assessment tool:** One-page assignment that students will complete after reading a text in which they: (a) identify the important ideas, and (b) evaluate how well the author supports his/her thesis.

**Success criterion:** a. 90% of students will identify 80% of the important ideas. b. 80% of students will earn a 3 or 4 on the "critical reading" part of the rubric.

**Results:** a. 86% of students identified 80% or more of the important ideas in the reading. b. 69% of students earned a 3 or higher on the writing assignment.

**Dialogue:** Discussion of the readings revealed that the faculty members were not in full agreement of which ideas in the readings were “important ideas.” Faculty decided that in future assessments they would like to use a common reading (about four different readings were used for this assessment) and that the full group should determine in advance what the ideas would be regarded as acceptable answers. They felt that an adjusted list of important ideas that included more ideas would bring the student results for (a) closer to 90%. Discussion of the writing assignments revealed that students were more effective in summarizing than evaluating. Faculty agreed to address this skill in the 2013 assessment cycle.

**Action plan:** Choose a common text to conduct this assessment again in the near future. Prior to the next assessment, devote a department meeting to discuss how to help students evaluate texts, and gather more best practices if the current practices seem insufficient.

### **EXAMPLE 3 (Student Services)**

**SLO:** Disabled Resource Center students will use their accommodations (e.g., test proctoring, textbooks in alternate format, and text-to-speech program such as Kurzweil 3000).

**Assessment tool:** Review of the number of alternate media request forms submitted each semester.

**Success criterion:** 60% of returning DRC students will submit an alternate media request

**Result:** Although the success criterion was met, the DRC continued to assess their services

**Dialogue:** Staff reviewed DRC record keeping process. They noted that the physical form had to be turned in to the office, and that they needed an automated way of tracking who submitted the form. They also examined the impact of the office being on the third floor.

**Action Plan:** This analysis resulted in the DRC creating an electronic form and purchasing a Student Accommodation Manager to track students. They also moved the office from the third to the first floor.

## **Appendix L:**

### **Skyline College's Student Learning Outcomes Assessment Cycle (SLOAC) Philosophy**

Skyline College is committed to facilitating student success. One means to fulfill this mission is through the Student Learning Outcomes Assessment Cycle (SLOAC), which asks campus constituents to engage in reflective practice. Properly conceived, the SLOAC should be first and foremost about improving student learning. As such, Skyline College stands by the American Association of Higher Education's (AAHE) "Nine Principles of Good Assessment" (see Appendix B), the first principle being that "Assessment is not an end in itself but a vehicle for educational improvement."

Skyline College is well aware that in any evaluation of student learning, the use of Student Learning Outcomes (SLOs) is only one component of a general profile. The Council for Higher Education (CHEA) Board of Directors' Statement of Mutual Responsibilities for Student Learning Outcomes (September 2003) prudently affirms that "judgments about quality are complex and must be based on a range of factors, including the purposes, resources, processes, and values of an institution...In applying these guidelines, it is imperative for accrediting agencies-- as well as the institutions and programs they accredit-- to avoid narrow definitions of student learning or excessively standardized measures of student achievement."

Skyline College also agrees with the mandate of the Academic Senate of California Community Colleges that a successful SLOAC must engage faculty and be faculty driven (ASCCC Resolution 2.01 F04 "Insistence that SLO Design Originate with Local Faculty"). The responsibility for teaching and learning lies primarily with faculty, who are well versed in their disciplines, invested in student learning, and knowledgeable about the principles of their respective and professional associations and licensing boards. Therefore, faculty must play a central role in developing explicit statements of what students will learn on the course, program, and institutional levels as well as interpreting and determining the implications of data. Secondly, the use of SLOs at the department or individual course level should not be prescriptive or intrusive on the principle of academic freedom (ASCCC Resolution 2.01 F03 "Protection of Academic Freedom and Privacy of Students and Faculty").

The aforementioned is not meant to obviate the importance of collaboration between faculty, classified staff, administrators, and students to achieve our institutional goals. On the contrary, Skyline College recognizes that the SLOAC "foster[s] wider improvement when representatives from across the educational community [student services staff, other key members of the college's support system, and students] are involved" (AAHE assessment principle #6). Clearly discussion will be enhanced with participation by all parties with a stake in improving student learning.

Skyline College also is committed to institutionalizing the SLOAC. The initiative cannot be simply an empty exercise in data gathering and reporting. Nor should said data be used to evaluate individual faculty (ASCCC Resolution 2.01 F03 "Protection of Academic Freedom and Privacy of Students and Faculty"). Rather, information about learning outcomes should be an

integral part of decision making ranging from the curricular level to the planning and budget level. Accordingly, Skyline College affirms the AAHE's assessment principle #7: "The point of assessment is not to gather data and return 'results': it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement."

The decisions about the development and application of the SLOAC are a collective responsibility of faculty, administrators, and accrediting agencies. Nonetheless, the responsibility for the interpretation and local implementation of the SLOAC shall remain within the purview of individual faculty/ department/ programs or student services units. As such, the SLOAC initiative will serve as a means to optimize student learning.

Approved in April 2005 by:

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Nick Kapp, President,  
Academic Senate

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Victoria P. Morrow, President

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Christine Roumbanis, Co-chair  
Curriculum Committee

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Regina Stanback-Stroud, Vice President  
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Arthur Takayama, Co-chair  
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Judith Redwine, Interim Vice  
President of Student Services

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Donna Elliott, President  
Classified Council

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Ilka Barcala, President  
Associated Students of Skyline College College

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Karen Wong, SLOAC Chair

## Appendix M:

### American Association of Higher Education's (AAHE) “Nine Principles of Good Practice for Assessing Student Learning”

- 1. The assessment of student learning begins with educational values.** Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only *what* we choose to assess but also *how* we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.
- 2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.** Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.
- 3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.** Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations -- those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.
- 4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.** Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way -- about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.
- 5. Assessment works best when it is ongoing not episodic.** Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.
- 6. Assessment fosters wider improvement when representatives from across the educational community are involved.** Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to

involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

7. **Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.** Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.
8. **Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.** Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.
9. **Through assessment, educators meet responsibilities to students and to the public.** There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation -- to ourselves, our students, and society -- is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

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## **Appendix N: Spring 2012 Academic Senate Resolutions**

### **RESOLUTION 1:**

#### **Support of Faculty Role and Responsibility in the Development and Use of Student Learning Outcomes to Improve Student Learning and Program Effectiveness**

WHEREAS, The values of Skyline College include a commitment to academic rigor and quality with relevant, recent, and evolving curriculum (Values Statement, 2010- 2011);

WHEREAS, The professional duties and responsibilities of faculty include evaluation of student performance and evaluation and revision of courses and programs (AFT Contract Appendix D, 2006-2009 );

WHEREAS, The Academic Senate for California Community Colleges maintains that “outcomes assessment is a productive activity that can improve teaching practices and thus enhance student learning,” and that “faculty should engage in SLO development and assessment not because it is a requirement for accreditation but rather because it is good professional practice that can benefit programs and students” ([Guiding Principles for SLO Assessment, 2010](#));

WHEREAS, The 2002 Accreditation Standards of ACCJC require that colleges incorporate measurable student learning outcomes at the course, program, degree and institutional level;

WHEREAS, The assessment of learning outcomes is an integral strategy in achieving the College Goals (Goals and Strategies, 2010 Update);

WHEREAS, The California Education Code 70902 (b) (7) makes direct reference to “the right of academic senates to assume primary responsibility for making recommendations in the areas of curriculum and academic standards;”

WHEREAS, The Academic Senate for California Community Colleges supports the embedding of SLO assessment in program review ([Resolution 9.05, 2010](#));

WHEREAS, The Academic Senate of Skyline College maintains the primary, active and essential role of faculty in articulating and assessing SLOs, and analyzing the data and its implications ([SLOAC Philosophy Statement for Skyline College, 2005](#));

WHEREAS, the development and assessment of student and program learning outcomes does not infringe upon Academic Freedom as defined by the 1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments (AAUP Policy Tenth Edition, 2006);

RESOLVED, That the Academic Senate of Skyline College supports the primary role and responsibility of faculty in the development and assessment of course, program, and institutional student learning outcomes;

FURTHER RESOLVED, That the Academic Senate of Skyline College maintains that the processes established for assessment of course, program, and institutional student learning outcomes should be designed to empower faculty to improve their professional abilities as educators and to encourage meaningful collegial dialogue about improving student learning and program effectiveness.

**RESOLUTION 2:**

**Opposed to the Use of Student Learning Outcome Attainment in Faculty Evaluation**

WHEREAS, Standard III.A.1.c of the 2002 Accreditation Standards states, “Faculty and others directly responsible for student progress toward achieving stated student learning outcomes have, as a component of their evaluation, effectiveness in producing those learning outcomes;”

WHEREAS, Varying and conflicting interpretations of Standard III.A.1.c have caused concern among faculty and institutions and have not been clarified by the “Questions to Use in Institutional Evaluation” provided by the *ACCJC Guide to Evaluating Institutions, 2011*;

WHEREAS, The Academic Senate of Skyline College declared that the results from assessing student learning outcomes will not be used “punitively or as a means of determining faculty or staff salaries or rewards” ([SLOAC Framework Statement of Principles on Assessment, 2005](#));

WHEREAS, The Academic Senate for California Community Colleges states that “using SLOs as a basis for faculty evaluations (III.A.1.c) demonstrates an egregious disregard for local bargaining authority and interjects a threatening tone into what the ACCJC claims is a collegial peer process” (The Accreditation Standards: Implementation, 2004);

WHEREAS, The Academic Senate for California Community Colleges affirmed its “opposition to including the attainment of student learning outcomes as an aspect of individual faculty evaluations,” and declared its intent to work with ACCJC “to ensure that accreditation recommendations do not use student learning outcomes in any manner that would undermine either local bargaining authority or the academic freedom of individual faculty members” ([Resolution 2.01, 2008](#));

RESOLVED, That the Academic Senate of Skyline College affirms its resistance to including the results from assessing student learning outcomes as an aspect of individual faculty evaluations, but rather should be used for course and program improvement;

FURTHER RESOLVED, That the Academic Senate of Skyline College will work with the ACCJC and with other concerned statewide faculty organizations to ensure that accreditation recommendations do not use student learning outcomes in any manner that would undermine either local bargaining processes or the academic freedom of individual faculty members.

**RESOLUTION 3:  
Support for a Meaningful and Sustainable Workload**

WHEREAS, Faculty's primary responsibility is to their students, some of whom face significant economic, academic, and social challenges;

WHEREAS, Faculty support student success in multiple ways that require their energy and time, ranging from engaging and innovative classroom curricula and instruction to individual assistance to formal processes such as program review;

WHEREAS, the SLOAC is one model required by accreditation to discuss student success and act on these realizations, so all departments should be engaged in it annually (Accreditation Standards, 2002);

WHEREAS, Faculty take ownership over the SLOAC process, ranging from determining which courses are most important to assess, how to assess, and how to interpret the results ([Statement of Principles on Assessment, 2005](#));

WHEREAS, Faculty insist on a SLOAC process that is meaningful rather than perfunctory, that it makes a difference for our students;

WHEREAS, Some departments/ programs are staffed by only one full-time faculty member, and/or are staffed predominantly by adjunct faculty, and are therefore shouldering a disproportionate number of responsibilities for assessment purposes;

WHEREAS, adjunct faculty constitute a significant percentage of instructors and are welcome and strongly encouraged to participate in the SLOAC but may not be able to due to other professional obligations;

RESOLVED, That the Academic Senate of Skyline College support faculty participating in the SLOAC process while also determining what is manageable, sustainable, and meaningful for their respective department, given the resources that are available to them to foster student success.

**RESOLUTION 4:  
Support of Publication of Student and Program Learning Outcomes**

WHEREAS, The values of Skyline College include a commitment to academic rigor and quality with relevant, recent, and evolving curriculum (Values Statement, 2010- 2011)

WHEREAS, the placement of student learning outcomes on instructor syllabi supports and does not infringe upon Academic Freedom as defined by the *1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments* (AAUP Policy Tenth Edition, 2006);

WHEREAS, the SLOs are a binding part and driving force of what is taught since faculty are required to follow the principles of the course outline of record, but faculty retain academic freedom in HOW they help students to achieve the SLOs;

WHEREAS, Recognition and implementation of specified student learning outcomes ensures that a student taking any section of a course will be expected to achieve the same fundamental outcomes, regardless of the method of instruction utilized;

WHEREAS, When academic standards and expectations are made transparent, students have a clear understanding of what is required of them in order to attain a desired level of academic success;

WHEREAS, Many students experience greater motivation to learn when they understand how a course or program may benefit them and further their educational and professional goals;

WHEREAS, The Academic Senate for California Community Colleges supports the alignment of SLOs from the course level upward through the program and institutional level ([\*Guiding Principles for SLO Assessment, 2010\*](#));

WHEREAS, Standard II.A.6 of the 2002 Accreditation Standards requires that the college “describes its degrees and certificates in terms of their purpose, content, course requirements, and expected student learning outcomes. In every class section students receive a course syllabus that specifies learning outcomes consistent with those in the institution’s officially approved course outline;”

WHEREAS, In its Rubric for Evaluating Institutional Effectiveness - Part III: Student Learning Outcomes, ACCJC requires that “students demonstrate awareness of goals and purposes of courses and programs in which they are enrolled;”

RESOLVED, That the Academic Senate of Skyline College strongly encourages all faculty to promote transparency and accountability by including student learning outcomes in their course syllabus and supports the publication of program learning outcomes for degrees and certificates in the College Catalog and college website.

**RESOLUTION 5:**

**Support for the Performance Evaluation Review Committee (PERC) to Address the ACCJC Requirement Pertaining to the SLOAC and Faculty Evaluation**

WHEREAS, The professional duties and responsibilities of faculty include evaluation of student performance and evaluation and revision of courses and programs (AFT Contract Appendix D, 2006-2009);

WHEREAS, The faculty of Skyline College are committed to the development, use and assessment of student learning outcomes and program learning outcomes as a means of improving student learning and program effectiveness (SLOAC Framework, 2018);

WHEREAS, the Accreditation visiting teams in Fall 2007 recommended all three colleges to address Standard III.A.1.c of the 2002 Accreditation Standards, which states, “Faculty and others directly responsible for student progress toward achieving stated student learning outcomes have, as a component of their evaluation, effectiveness in producing those learning outcomes” (Skyline College Visiting Team Evaluation Report, 2007);

WHEREAS, The Academic Senate of Skyline College is opposed to including the results from assessing student learning outcomes as an aspect of individual faculty evaluations;

WHEREAS, Reflection on instructional and assessment practices and results are hallmarks of good educators, and evaluation and revision of curricula and programs are professional obligations;

RESOLVED, That the Academic Senate of Skyline College requests that the PERC address the ACCJC requirement pertaining to faculty evaluation and the SLOAC.

Note: The PERC was renamed the Performance Evaluation Task Force (PETF).

## **Appendix O:**

### **Skyline College Guiding Principles of Assessment**

*Adapted from Palomar College Statement of Principles on Assessment, 2000*

#### **WHY DO ASSESSMENT?**

The Skyline College Values Statement affirms the College's commitment to "academic rigor and quality with relevant, recent, and evolving curriculum" and our College Goals include development of "the scope, quality, accessibility, and accountability of instructional and student service offerings, programs and services." To carry out that commitment, Skyline College will develop and continuously refine an institutional framework for assessing student learning and for using the results of such assessment to better serve our students.

The value of assessment is also recognized at the state level. The Academic Senate for California Community Colleges maintains that "outcomes assessment is a productive activity that can improve teaching practices and thus enhance student learning," and that "faculty should engage in SLO development and assessment not because it is a requirement for accreditation but rather because it is good professional practice that can benefit programs and students" (Academic Senate for California Community Colleges, *Guiding Principles for SLO Assessment, 2010*).

#### **WHAT IS THE PURPOSE OF ASSESSMENT?**

At Skyline College, the fundamental purpose of assessment is to understand, and thereby improve, student success. Additional and more specific purposes of assessment at Skyline College include:

- To provide improved feedback, guidance, and mentoring to students in order to help them better plan and execute their educational programs.
- To provide improved feedback about student learning to support faculty and staff in their work.
- To help design and modify programs to better promote learning, access, and student success.
- To improve student learning and development in classes, in programs, and across the college.
- To develop common definitions and benchmarks for important student abilities that will enable us to act more coherently and effectively to promote student learning.
- To help us understand how different groups of students experience the college differently so as to adapt our courses and programs to the needs and capacities of all students.

- To help us understand how our different courses and programs affect students over time and to better coordinate and sequence the students' experience to produce deeper learning.
- To assess student learning to measure student progress, but also to discover ways to make our teaching more effective. If we notice consistent holes in what our students know or can do, we can focus our energies on finding ways to fill those gaps. In addition, assessment can serve as a learning tool in itself. That is, a student learns by preparing for and completing the assessment.

### **WHAT IS AUTHENTIC AND MEANINGFUL ASSESSMENT?**

Skyline College Academic Senate resolves that, “Faculty insist on a SLOAC process that is meaningful rather than perfunctory, that it makes a difference for our students.” (*Five Resolutions on the Purpose and Function of SLO's at Skyline College and Faculty Roles and Responsibilities, Resolution 3, April 2012*).

This statement succinctly restates Skyline College's “Students First” approach to the SLOAC. As faculty we are committed to working together to find commonality in what is important for students to be able to know and do after walking through our doors. We let our differences in content be secondary and our differences in delivery enable us to shine.

Further, to gather data we use assessments that foster student learning as well as monitor student progress. The benefit of using the SLOAC is that it increases teacher collaboration, provides transparency of purpose to our students, and a focus on specific, collaboratively-determined core competencies.

### **GUIDING PRINCIPLES OF ASSESSMENT AT SKYLINE COLLEGE**

- Assessment is useful and valuable because it helps us evaluate and improve teaching and learning. Information gained from assessment is used to improve student preparedness for effective learning in our programs.
- Individual faculty members continue to exercise their best professional judgment in matters of grading and discipline.

- It is valid to assess an appropriate and representative sample of students in order to learn about the effectiveness of our academic and student services programs.
- Assessment can be quantitative and/or qualitative. While numerical scales or rubrics (such as the four-point grading scale) can be useful, their accuracy always depends on the clear understanding of the concepts behind the numbers. Often the best indicator of student learning can be expressed better as a narrative or a performance instead of a number.
- Assessment is an ongoing observation of student success, and therefore includes both formative and summative assessment data. It is important to seek multiple judgments of student learning rather than a single measure when possible.
- Assessment can include, but is not limited to only grading or testing.
- The criteria for assessment are made explicit to students so that they can self-assess and continuously improve their own performance.
- Skyline College faculty, in consultation with the entire college community, identify the skills and knowledge to be assessed. This community may include transfer institutions and those who employ our graduates.
- Students are assessed throughout their college experience in order to evaluate their ongoing progress.

### Works Cited

Angelo, T., (1995). "Improving Classroom Assessment to Improve Learning: Guidelines from Research and Practice", Assessment Update. 7 (6). 1-2, 12-13. *Handbook of California Articulation Policies and Procedures* (2001 edition) <http://onlinelibrary.wiley.com/doi/10.1002/au.v7:6/issuetoc>

Adapted from Palomar College, 2000.

## Appendix P:

### SLOs and Assessment Glossary

**Alignment.** Alignment (a.k.a. “mapping”) is the process of analyzing how explicit criteria line up or build upon one another within a particular learning pathway. For instruction, course outcomes should align with program outcomes, which in turn align with institutional outcomes that are informed by the college mission, vision and values. For student services, alignment of program outcomes should align with institutional outcomes.

**Analytic Scoring:** Used for rubrics, it is evaluating student work across multiple dimensions of performance rather than from an overall impression (holistic scoring). In analytic scoring, individual scores for each dimension are scored and reported. For example, analytic scoring of a history essay might include scores of the following dimensions: use of original source material to support claims, ability to synthesize multiple sources of information, and essay composition.

**Anchor Set:** Used for rubric norming sessions, it is a sample of student work that exemplifies a specific level of performance. Raters use anchors to score student work, usually comparing student performance to the anchor. For example, if student work was being scored on a scale of 1-4, there would typically be anchors (previously scored student work), exemplifying each point on the scale.

**Artifact:** An assessment artifact is a student-produced product or performance used as evidence for assessment.

**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 term 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. It is designed to enable students to actively demonstrate what they know rather than simply recognize or recall content or facts.

**Benchmark:** It is a detailed description of a specific level of student performance expected of students at particular stages or development levels. Attainment of benchmarks are often evaluated with samples of student work. A set of benchmarks can be used as “checkpoints” to monitor progress toward meeting performance goals within and across levels.

**Bloom’s Taxonomy:** Bloom’s Taxonomy is an example of one of several classification methodologies used to describe increasing complexity or intellectual sophistication: Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation.

**Classroom Assessment Techniques:** CATs are “simple tools for collecting data on student learning in order to improve it” (*Classroom Assessment Techniques*, Angelo & Cross, 1993, p. 26). CATs are short, flexible, classroom techniques that provide rapid, informative feedback to improve classroom dynamics by monitoring learning, from the student’s perspective throughout the semester. They’re well suited for formative assessment purposes.

**Closing the Loop:** It involves using assessment results to improve student learning through collegial dialogue informed by the results of the 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, and then cycling back to collecting assessment results, etc.

**Course Assessment:** This assessment evaluates the curriculum as designed, taught, and learned. It involves the collection of data aimed at measuring successful learning in the individual course and improving instruction with the ultimate goal towards improving learning and pedagogical practice.

**Criteria:** They are guidelines, rules, characteristics, or dimensions that are used to judge the quality of student performance. Criteria indicate what we value in student responses, products or performances. They may be analytic or holistic, for instance for rubrics.

**Culture of Evidence:** The term culture of evidence refers to an institutional culture that supports and integrates research, data analysis, evaluation, and planned change as a result of assessment to inform decision-making (Pacheco, 1999). This culture is marked by the generation and valuing of quantitative and qualitative data providing accountability for institutionally defined outcomes (Wright, 1999).

**Direct Measures of Student Learning:** They are methods of collecting information about student learning that require students to demonstrate their knowledge, skills, and/or abilities, not perceptions of learning or secondary evidence such as a degree or certificate. Examples are written assignments, classroom [tasks], presentations, test results, projects, recitals, logs, portfolios, and direct observations (Leskes, 2002). Direct measures often require a systematic scoring system that employs a rubric.

**Embedded Assessment:** Embedded assessment occurs within the regular class or curricular activity, which encourages students to be motivated and perform to the best of their abilities. Often used for assessment purposes and course assignments that are evaluated to assign students a grade. Individual questions on exams can be embedded in numerous sections of a course and/or courses to provide departmental, program, or institutional assessment information. An additional benefit to embedded assessment is immediate feedback on the pedagogy and student needs.

**Evidence:** They are artifacts or objects produced that demonstrate and support conclusions, including data, portfolios showing growth, products, as opposed to intuition, belief, or anecdotes. “Good evidence, then, is obviously related to the questions the college has investigated and it can be replicated, making it reliable. Good evidence is representative of what is, not just an isolated case, and it is information upon which an institution can take action to improve. It is, in short, relevant, verifiable, representative, and actionable” (ACCJC, 2008, p. 10).

**Equity:** It is the extent to which an institution or program achieves a comparable level of outcomes, direct and indirect, for various groups of enrolled students, for instance by ethnicity, gender, age, evening versus day, online/hybrid versus face-to-face students, etc. In addition, the assessments should be free of bias, enabling all students to show what they know or can do.

**Focus Groups:** They consist of participants who might contribute useful information related to student learning through structured group interviews. Examples of possible focus groups include: 1) current students; 2) graduating students; 3) alumni; 4) current and perspective employers; 5) supervisors of students in field experiences (Suskie).

**Formative Assessment:** Formative assessment is a diagnostic tool implemented during the instructional process that generates useful feedback for student development and improvement. The purpose is to provide an opportunity to perform and receive guidance (such as in class assignments, quizzes, discussion, lab

activities, etc.) that will improve or shape a final performance. This stands in contrast to summative assessment where the final result is a verdict and the participant may never receive feedback for improvement such as on a standardized test or licensing exam or a final exam. In contrast are summative assessments.

**Grades:** Grades are the faculty evaluation of a student's performance in a class as a whole, or on assignments. Grades for a class represent an overall assessment of student class work, which sometimes involves factors unrelated to specific outcomes. For this reason, class grades cannot be used for SLO assessment. On the other hand, grades on assignments to SLO assessment can be done, but must be done carefully. If only assessing one SLO, the grade will work if the assignment primarily requires students to demonstrate this one SLO. If assessing more than one SLO, then grades used in tandem with an analytic rubric work best. An analytic rubric will enable faculty to distinguish at which level students are faring on each SLO.

**Holistic Scoring:** Used for rubrics, it is a scoring process in which a score is based on an overall assessment of a finished product that is compared to an agreed-upon standard for that task.

**Indirect Measures of Student Learning:** Indirect measures imply student learning by employing records and self- assessments. For instance, course grades provide indirect evidence of student learning but do not directly indicate what the student actually learned. In addition to departmental or college records, indirect measures also are methods of collecting information about student learning that asks students (or others) to reflect on their learning rather than demonstrate it. Such indirect measures often involve collecting opinions and perceptions from surveys, interviews, focus groups, and/or reflective essays. No matter which, indirect measures are best situated at program level assessment.

**Institutional Student Learning Outcomes/ General Education Outcomes/ Core Competencies.:** These are the knowledge, skills, and abilities a student should attain by the end of a course, program or set of services. Because GE Outcomes represent a common core of outcomes for students receiving degrees, some- but not all, institutions equate them with ISLOs. As such, upon graduation with an Associate's Degree, a Skyline College student will acquire a level of proficiency comparable with the first two years of a baccalaureate degree in the following five general education areas: effective communication, critical thinking, information literacy, citizenship, and lifelong wellness.

**Likert Scale:** The Likert scale assigns a numerical value to responses in order to quantify subjective data. The responses are usually along a continuum such as responses of strongly disagree, disagree, neutral, agree, or strongly agree and are assigned values such as 1-5.

**Longitudinal Analysis:** It is a form of evaluation or assessment that is followed over time (longitudinal) on one or more variables. The quality of results is dependent on there being a common assessment and evaluative criteria.

**Metacognition:** Metacognition is the act of thinking about one's own thinking and regulating one's own learning. It involves critical analysis of how decisions are made and vital material is consciously learned and acted upon.

**Mapping (to [PSLOs](#) or [ISLOs](#)):** For faculty, it is the process of aligning course level outcomes with program level and institutional outcomes, and for student services staff, it is the process of aligning program level outcomes with institutional outcomes. Mapping makes explicit how students achieve these

overarching outcomes within the classroom and/or while using a [student service](#). The process also enables faculty and staff to identify potential gaps in curriculum and/or services.

**Norming:** It is the process of educating raters to evaluate student work and produce dependable scores. Typically, this process uses [anchors](#) to acquaint raters with criteria and scoring rubrics. Open discussions between raters and the trainer help to clarify scoring criteria and performance standards, and provide opportunities for raters to practice applying the rubric to student work.

**Objectives:** Objectives are small steps that lead toward a goal, for instance the discrete course content that faculty cover within a discipline. Objectives are usually more numerous and create a framework for the overarching student learning outcomes which address synthesizing, evaluating and analyzing many of the objectives.

**Primary Traits:** Used in [rubrics](#), primary traits are the characteristics that are most important in evaluating an assignment. Criteria with performance standards should be defined for each primary trait. For instance, an essay may have the thesis, development, organization, and grammar as primary traits. Each of those four traits would then be further delineated as to what constitutes “excellent,” “good,” “average,” and “not passing.”

**Portfolio:** It involves a systematic and organized collection of a student’s work that exhibits to others the direct evidence of a student’s efforts, achievements, and progress over a period of time. It should include representative work, providing a documentation of the learner’s performance and a basis for evaluation of the student’s progress. Portfolios may include a variety of demonstrations of learning and have been gathered in the form of a physical collection of materials, videos, CD-ROMs, reflective journals, etc. (<http://www.newhorizons.org/strategies/assess/terminology.htm>)

**Program:** In Title 5, “Program” is defined as a cohesive set of courses that result in a certificate or degree. However, in Program Review, colleges often define programs to include student services as well. As such, a program also may be a cohesive group of courses or activities that support a common set of outcomes.

**Program Review:** Program review is a self-evaluation process by which programs assess their current state, consider the environment in which the program exists, and develop strategies to enhance program effectiveness.

**Prompt:** It is a short statement or question that provides students a purpose for writing or given activity.

**Qualitative Data:** Qualitative data are data collected as descriptive information, such as a narrative or portfolio. These types of data, often collected in open-ended questions, feedback surveys, or summary reports, are more difficult to compare, reproduce, and generalize. They are bulky to store and to report; however, they can offer insightful information, often providing potential solutions or modifications in the form of feedback. Qualitative data, such as opinions, can be displayed as numerical data by using Likert-scaled responses that assigns a numerical value to each response (e.g. 5 = strongly agree to 1 = strongly disagree).

**Quantitative Data.** Quantitative data objectively measures a quantity (i.e. number) such as students' scores or completion rates. These data are easy to store and manage; they can be generalized and reproduced but have limited value due to the rigidity of the responses and must be carefully constructed to be valid.

**Reliability:** Reliability refers to the reproducibility of results over time or a measure of the consistency when an assessment tool is used multiple times. In other words, if the same person took a test five times,

the data should be consistent. This refers not only to reproducible results from the same participant but also to repeated scoring by the same or multiple evaluators.

**Rubric:** A rubric is a set of criteria used to determine scoring for an assignment, performance, or product. Rubrics may be holistic, providing general guidance with a list of the [primary traits](#), or analytical, assigning specific scoring point values to those primary traits (e.g., 3 as excellent, 2 as average, 1 as needs improvement). Descriptors provide standards for judging the work and assigning it to a particular place on the continuum. A rubric often improves the consistency and accuracy of subjective assessments.

**Sampling:** Sampling is a research method that selects units such as certain groups of students from a specific population of students being studied, so that by examining the sample, the results can be generalized to the population from which they were selected when everyone in the population has an equal chance of being selected (i.e. random).

**Student Learning Outcomes (SLO):** An SLO is a clear statement of what a student should learn and be able to demonstrate upon completing a course/ program or utilizing a student service. It describes the assessable and measurable knowledge (cognitive), skills, abilities (behavioral) or attitudes (affective) that students should attain by the end of a learning process. An SLO describes students' ability to synthesize many discreet skills using higher level thinking skills and to produce something that asks them to apply what they've learned.

**Student Self Reflection:** It involves student ratings of their knowledge, skills and attitudes; this can provide useful indirect evidence of student learning and also helps students develop metacognitive skills (Suskie, p. 139)

**Success Criterion:** Also referred to as the “benchmark,” the success criterion are the performance standards that determine whether or not a student has achieved a given level of knowledge, skill or attitudinal proficiency.

**Summative Assessment:** A summative assessment is a final determination of knowledge, skills, and abilities. This could be exemplified by exit or licensing exams, senior recitals, or any final evaluation that is used only for final judgments, not to provide feedback for improvement. A midterm exam may fit in this category if it is the last time the student has an opportunity to be evaluated on specific material. In contrast are formative assessments.

**Validity:** It is the extent to which an assessment measures what it is supposed to measure.

Adapted from:

Academic Senate for California Community Colleges' “SLO Terminology Glossary - A Resource for Local Senates” [https://www.asccc.org/sites/default/files/publications/SLO-Glossary-2010\\_0.pdf](https://www.asccc.org/sites/default/files/publications/SLO-Glossary-2010_0.pdf)

Community College of Allegheny County's “Assessment of Student Learning Glossary” [https://www.ccac.edu/Assessment\\_of\\_Student\\_Learning\\_Glossary.aspx](https://www.ccac.edu/Assessment_of_Student_Learning_Glossary.aspx)

Southern Methodist University's “Direct and Indirect Measures” <https://www.smu.edu/Provost/assessment/Measures>



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