

PSLO Revision Design Principles

Based upon review of Program Student Learning Outcomes from other community colleges and a review of literature focused on equity and assessment, Guided Pathways Workgroup #4 recommends a series of design principles to consider as we revise our PSLOs (and even ISLOs) at Fullerton College. A draft of these principles was field-tested at the December 2019 Pathways Symposium and then revised in response to participant feedback.

We suggest that effective PSLOs should:

- A. be measurable in a way that is equitable and meaningful both to students and program faculty using the following questions as guidelines:
 - are they assessed using **more than one example** of student work, via a portfolio of work, for example?
 - are **different types of work included** as part of the assessment, such as exams, reflections, presentations, papers, a multi-faceted capstone project, etc.?¹
 - are they assessed both quantitatively and qualitatively?
 - have students been included in the assessment process?²
- B. be backwards designed from ISLOs that reflect NACE core competencies or other metrics that include both academic and professional skills and require metacognition about learning (PSLOs will be “operationalized” versions of broader ISLOs)
- C. reflect the depth and breadth of learning that has taken place across the program (or pathway)
 - do the outcomes require synthesis of learning from multiple courses, including general education, to achieve (rather than represent a collection of discreet, entry-level skills)?
 - do the outcomes reflect higher order problem-solving/critical thinking skills and contextual application of knowledge, regardless of discipline, signaled by verbs from higher levels on Bloom’s taxonomy?
 - are the outcomes purpose-driven by skills and knowledge students need to reach the personal, educational, and professional goals associated with the program (or pathway)?

¹Erick Montenegro and Natasha A. Jankowski in “Equity and Assessment: Moving Towards Culturally Responsive Assessment,” call this “differentiated assessment” (8). According to them, “higher education still privileges certain types of learners, certain ways of demonstrating knowledge.” They recommend that students be offered opportunities to demonstrate their learning across “multiple contexts” through a “range of methods” (8).

²Montenegro and Jankowski argue that a student-centered process makes assessment more equitable. If we develop outcomes “for and with students, then we increase the chances of students understanding what is expected of them” and “instead of students’ knowledge conforming to how we traditionally measure it, students would now have agency in how to demonstrate learning” resulting in a more inclusive process, overall (12).

Program Student Learning Outcome (PSLO) Examples

Pathways Workgroup #4 has created a series of examples from a range of disciplines to illustrate the PSLO redesign principles in action. Each set below includes a “sample” and a “recommended revision” PSLO. The “samples” look much like our current PSLOs which are really just course student learning outcomes raised to the level of program outcomes. The “samples” tend to be based on somewhat narrow and discrete skills. The “recommended revisions” are designed to synthesize skills students have developed over a course of study and are meant to address the kind of complex tasks students can do when they have completed a program. Some of the examples include commentary (in italics) to explain the principles in action.

AUTOMOTIVE TECHNOLOGY	
Sample	Recommended Revision
Perform automotive inspection and diagnostic procedures	Demonstrate proficiency in the use of automotive diagnostic equipment to evaluate system performance and determine needed repairs.

BIOLOGY	
Sample	Recommended Revision
<p>Demonstrate an understanding of how the scientific method is used to explore topics in biology.</p> <p><i>This outcome is currently measured by CSLO 70% success rate from common questions on exams and could also be assessed by using multiple assessment tools, such as group lab reports that include professional skills from NACE.</i></p>	<p>Demonstrate an understanding of how the scientific method is used to explore topics in biology by designing and carrying out their own experiments and communicating their results to the scientific community.</p> <p><i>This outcome allows for multiple assessment tools and ties to NACE core competencies.</i></p>

BUSINESS

Sample	Recommended Revision
<p>Use Microsoft Word to produce a business letter</p> <p><i>This outcome focuses on a discrete skill. It might be more appropriate as a course level outcome or even objective</i></p> <p><i>This only allows for one assessment tool: a business letter</i></p>	<p>Evaluate business issues/problems and then formulate, communicate, and defend recommendations to decision-makers</p> <p><i>This outcome reflects complex, interconnected skills. As a program outcome, this requires students to bring together skills developed across several courses.</i></p> <p><i>It is broad enough to allow for a variety of assessment tools (PPT, business proposal, report, etc.)</i></p>

CHEMISTRY

Sample	Recommended Revision
<p>Demonstrate proficiency in solving chemical mathematical problems.</p>	<p>Apply appropriate scientific techniques to solve problems and interpret results in organic and inorganic chemistry, communicating those results through computation and/or language.</p>

CHILD DEVELOPMENT

Sample	Recommended Revision
<p>Know and understand the established as well as recent theories of child development.</p> <p><i>This one seems lower on Bloom's taxonomy and mostly measurable via exam</i></p>	<p>Understand, assess, and apply historical and contemporary theories of child development to observation and practice.</p> <p><i>Measurable-through exams, projects, papers, portfolios, discussions, interviews; purpose-driven; problem solving focused; requiring evolving learning and knowledge from all four core courses and skills higher on Bloom's taxonomy</i></p>

COUNSELING

Sample	Recommended Revision
Demonstrate personal responsibility, ethical behavior, cultural awareness and respect for diverse perspectives.	Students will develop goals and devise strategies for personal development and well-being that demonstrate an understanding of what it means to be an ethical human being and effective citizen with an awareness of diversity and various cultural viewpoints.

ENGLISH

Sample	Recommended Revision
Analyze a literary text based on its historical, social, and/or cultural significance. <i>This one focuses just on literary texts rather than including the kind of reading and analysis students do across the program when you include composition classes and not just literature classes</i>	Analyze and interpret literary and expository texts by describing the ways in which historical and cultural contexts, as well as rhetorical and stylistic choices, contribute to meaning. <i>This one is broader, capturing the analysis students do in both composition and literature courses. It also considers the broader task of sense-making that is at the heart of the critical thinking ISLO. It suggests that knowledge about history, culture, rhetoric, and style need to be synthesized to effectively interpret texts in this program.</i>

PHYSICAL EDUCATION

Sample	Recommended Revision
Design a personal exercise program <i>This addresses one, discrete skill.</i>	Design a personal exercise program using the five components of physical fitness and evaluate its effectiveness by collecting and analyzing personal fitness data. <i>This synthesizes several skills and suggests the conceptual knowledge required to accomplish the task.</i>