Reference materials and helpful guidelines for writing program- and course-level student learning outcomes

A Student Learning Outcome (SLO) is a statement of the knowledge, skills, abilities, or values students should acquire in the course or across a program.

Section I*

For the Program-Level: When focusing on SLOs at the program level, it is important to come to a consensus on which SLOs are important for the program as a whole. Faculty within a department or program meet to discuss the expected learning outcomes for students who complete a particular program. For the purposes of assessment 6 outcomes are most manageable.

For the Course-Level: When focusing on SLOs at the course level, it is important to come to consensus about which SLOs represent the broad outcomes for the course. Usually a course will have one to five SLOs. Faculty collaborating on course-level student learning outcomes assessment meet to review the SLOs for the course. If there are no SLOs on the existing course outline or record, now is the time to write them. For the purposes of an assessment project, consider selecting one or two of them.

For either level: Writing measurable outcomes is a skill that takes time to master. When writing SLOs:

• **Focus on what the student should know and be able to do** at the end of the program or course. Consider how students will demonstrate the knowledge, skills, abilities, or values you expect students to develop.

• **Use active verbs.** Active verbs specify definite, observable and measurable behaviors. When crafting SLOs, use verbs that reflect the highest levels of thinking required by a course. Keep in mind that, according to Title 5, all college courses, and particularly transfer level courses, should involve a high degree of critical thinking. For instance, while an SLO might state that "... students will be able to choose appropriate plants for a garden," an SLO reflecting the critical thinking process involved might be worded: "students will be able to evaluate and select plants according to their suitability for various soil and light conditions." This outcome both expresses criteria and measures ability.

• **Share the outcomes with your students.** Students need to clearly understand what is expected of them. They are usually unfamiliar with the discipline specific language, so they can help in clarifying the outcomes as well.

• **Modify as you learn** from experience. As you begin the actual assessment, sometimes flaws will be identified in the SLO itself. Upon completion of your assessment project, you may discover that revision of the SLO is necessary.

Examples of discipline-specific well-written program-level SLOs:

**Art History**

1. Place a work of art in its historical and stylistic context.
2. Identify major monuments and movements in the history of art.
3. Develop a vocabulary to discuss art in aesthetic terms.
4. Demonstrate skills in visual analysis by identifying specific formal elements.
5. Refine critical analysis skills in comparing works of art.
6. Achieve greater awareness of global traditions.
7. Identify cultural artistic characteristics.
8. Recognize basic methods and materials used in architecture, painting, sculpture, printmaking, ceramics, metalwork and textiles.
Restaurant Management
1. Effectively manage a restaurant or other culinary service operation;
2. Exhibit, recognize, motivate & develop employee professionalism in a management capacity;
3. Create an atmosphere conducive to excellent guest service;
4. Communicate effectively with customers and employees;
5. Apply knowledge and skills to all aspects of restaurant operations;
6. Succeed in the restaurant or other culinary service business.

Music
1. (Through music theory) demonstrate an understanding of the fundamental melodic, harmonic, and rhythmic structure of music.
2. (Through musicianship) Demonstrate fluency with the language of music in written and aural form.
3. (Through applied music) Perform on their instrument (or voice) at college sophomore level.
4. (Through their major performing ensemble) Perform effectively in a musical ensemble.
5. (Through piano proficiency) Utilize the piano keyboard to demonstrate and apply musical concepts.
6. (Through music history) Demonstrate a broad-based understanding of the historical and aesthetic development of music.

Examples of well-written course-level SLOs:

• DH 82: Advanced Clinical Dental Hygiene Care
  o Students will be able to correctly interpret symptoms and select appropriate intervention to manage patient fear, anxiety, and/or pain in a dental clinic setting.
• PSYCH 4: Child and Adolescent Psychology
  o Students will be able to analyze and apply biological and environmental principles to explain cognitive, physical, emotional and social development of the individual from the pre-natal period through childhood and adolescence.
  o Students will be able to describe and apply the research methods used to study child and adolescent psychology.
• APGR 50: Introduction to Typography
  o Students will apply professional typography skills using a personal computer to create effective design projects.
• ENGL 302: Improvement of College Reading and Writing
  o Students will demonstrate proficiency in writing a variety of types of essays in response to readings and other materials at a level required for success in ENGL 100 and other AA/AS degree-applicable courses.
  o Students will select and evaluate source materials and incorporate them correctly into written assignments.

Remember:
• It is important to determine the method of assessment for each Program OR Course Student Learning Outcome and the criteria for success.
• After you create your SLOs, think about what assignments or course or program requirements will provide you with the student work (evidence) you will examine to determine if the outcomes have been achieved.

*Adapted from Santa Rosa Junior College: Project Learn
Section II**

Examples of learning outcomes - undergraduate Program-level:
Students completing this program will be able to:

• summarize and critique research reports published in political science journals.
• identify, describe, and classify common, and some uncommon, earth materials (minerals and rock); make scientific observations of these earth materials in the field and in the laboratory; and interpret their observations in a scientifically sound manner.
• analyze the impact of social policies on client systems, [social] workers, and agencies.
• prepare a set of financial statements in accordance with generally accepted accounting principles."

Examples of learning outcomes - undergraduate Course-level:
Students completing this course will be able to:

• prepare...and present effective informative and persuasive public speeches.
• identify various psychosocial factors...that play a role in the behavior change process and utilize them in individual and group program planning.
• produce writing with APA or MLA formal documentation, which consists of in-text citations and final list of all sources cited."

Counter-examples: There are several common types of statements that resemble learning outcomes but that would be more explicit or more useful if rewritten to conform to the format illustrated above. Examples include:

• Invisible/inaudible knowledge: It is stated that the student will know something or gain an appreciation of something, but not that the student can do something. Example:
  o [Students will] “understand the operations of financial institutions and the services they provide.”
  o Rewrite as: Students will be able to describe the operations of financial institutions and the services they provide.

• Learning process: The process of learning is stated, rather than the outcome. Example:
  o The student will read a textbook describing the history of Western music.
  o Rewrite as: The student will be able to summarize the important features of major periods in the history of Western music.

• Teaching perspective: The statement is made from the perspective of the instructor or as a goal of instruction, rather than from the perspective of what the student has learned and can demonstrate. Example:
  o “This course will] provide learners with the theoretical underpinnings of oral history as a „way of knowing„.”
  o Rewrite as: Learners will be able to identify the theories employed by researchers who use oral history methods.

• Student satisfaction with the course or the instructor: It is stated that the student will have a rewarding experience in the course or program. Example:
  o Students will come to see that statistics can be fun, like solving puzzles.
  o Rewrite as: Students will be able to apply basic techniques of hypothesis testing to draw conclusions about populations from samples.

**Adapted in part from: IUPUI Guide to the Learning Outcomes Assessment Process**