Writing SLOs

**To measure Department or Program Testing outcomes:** Requires that department to evaluate all of their courses and revise them if necessary. Each and every course must be revised to include SLOs.

In the new Accreditation standards, a SLO describes the knowledge, skills, abilities, and attitudes (behaviors, values) that students have attained by the end of any set of college experiences – classes, degrees and certificates, and even encounters with Student Services or the Library. The stress is on what students can **DO** with what they have learned, resulting in some sort of product that can be evaluated. The product they produce can be in the form of papers, projects, portfolios, demonstrations, performances, art works, exams, etc. – that applies to what they have learned. Courses should average between 3 and 6 SLOs.

Examples

**English Composition series**

1. Write paragraphs and short essays demonstrating basic sentence-level competency and culminating in a portfolio.
2. Comment on ideas and writing strategies in reading assignments
3. Write essays demonstrating sustained clarity of intention, awareness of audience, and various techniques
4. Articulate responses to readings in various genres.

**Composition and Literature**

1. Write literary analysis, interpretation, and research-based essays.
2. Demonstrate close readings of literary texts for analysis and interpretation.

Some Dos and Don’ts:

1. Don’t use the word “understand” – go for higher level of thinking skills
2. Don’t use the phrase “students will.” Avoid any pronouns like “them” or “their.”
3. Keep the number of outcomes short. Use the outcomes to describe the major skills or knowledge students will take away from the course and what they will produce to show you that they have mastered those skills.

Guide to Writing SLOs
1. In one sentence, describe one major piece of knowledge, skill, ability or attitude that a student will have gained by the end of the you class. Describe what students will do – not content.
2. Use action verbs.
3. Write it in language that a students will understand.
4. Make sure that the outcome is something that can be assessed or tested.
5. A word of warning: Be careful when describing attitudes in a learning outcome. They are hard to assess. Ask yourself if the attitude is crucial to success in your course.
6. Courses should average between 3 and 6 SLOs.

Assessing Course SLOs

Step One: Identify course SLOs from classes you are teaching that semester.

Step Two: Choose graded assignments that you feel measure some aspect of the courses SLOs.

Step Three: Grade and analyze the assignments

Step Four: Meet as a department and to share your analysis. Each department member shares the following: (1) The assignments given; (2) the results; and (3) based on results, describe how you would change or improve the teaching of this assignment. Were you satisfied? What do you need as an instructor to improve your teaching and/or learning of the assignment?

At the end of this meeting, discuss what your department needs to improve the teaching and learning in department courses in general. What do you need from the college?

Action Verb List – Suggested Verbs to Use in Each Level of Thinking Skills

- Below are terms (verbs) that can be used when creating student learning outcomes for a course or degree program.
**Verb List for Student Learning Outcomes – Six Levels of Learning**

Student learning outcomes for a degree program will encompass several levels of learning, from the acquisition of facts to the ability to think critically and solve problems. Each statement of a student learning outcome should include a verb that represents the level of learning that is expected.

**Recommendation: Write questions that test skills other than recall.** Research shows that most tests administered by faculty rely too heavily on students' recall of information (Milton, Pollio, and Eison, 1986). Bloom (1956) argues that it is important for tests to measure higher-learning as well. Fuhrmann and Grasha (1983, p. 170) have adapted Bloom's taxonomy for test development. According to Bloom’s taxonomy, there are six levels of learning: knowledge, comprehension, application, analysis, synthesis, and evaluation.

The following is a list of verbs for use when creating student learning outcome statements:

- **To measure knowledge** (common terms, facts, principles, procedures), ask these kinds of questions: Define, Describe, Identify, Label, List, Match, Name, Outline, Reproduce, Select, State. Example: "List the steps involved in titration."

- **To measure comprehension** (understanding of facts and principles, interpretation of material), ask these kinds of questions: Convert, Defend, Distinguish, Estimate, Explain, Extend, Generalize, Give examples, Infer, Predict, Summarize. Example: "Summarize the basic tenets of deconstructionism."

- **To measure application** (solving problems, applying concepts and principles to new situations), ask these kinds of questions: Demonstrate, Modify, Operate, Prepare, Produce, Relate, Show, Solve, Use. Example: "Calculate the deflection of a beam under uniform loading."

- **To measure analysis** (recognition of unstated assumptions or logical fallacies, ability to distinguish between facts and inferences), ask these kinds of questions: Diagram, Differentiate, Distinguish, Illustrate, Infer, Point out, Relate, Select, Separate, Subdivide. Example: "In the president’s State of
the Union Address, which statements are based on facts and which are based on assumptions?"

To measure **synthesis** (integrate learning from different areas or solve problems by creative thinking), ask these kinds of questions: Categorize, Combine, Compile, Devise, Design, Explain, Generate, Organize, Plan, Rearrange, Reconstruct, Revise, Tell. Example: "How would you restructure the school day to reflect children's developmental needs?"

To measure **evaluation** (judging and assessing), ask these kinds of questions: Appraise, Compare, Conclude, Contrast, Criticize, Describe, Discriminate, Explain, Justify, Interpret, Support. Example: "Why is Bach's Mass in B Minor acknowledged as a classic?"

Many faculty members have found it difficult to apply this six-level taxonomy, and some educators have simplified and collapsed the taxonomy into three general levels (Crooks, 1988): The first category is knowledge (recall or recognition of specific information). The second category combines comprehension and application. The third category is described as "problem solving," transferring existing knowledge and skills to new situations.