

An effective graduate program establishes a curriculum of course work and provides instruction, mentoring, and other learning experiences to enable graduate students to acquire the knowledge and skills needed to engage in “independent research and professional practice.” (p. 87, SACSCOC, 2018).

One expectation for graduate level courses is that the SLOs should reflect learning based on academic content that is clearly more advanced and rigorous than that described in undergraduate SLOs. Program level SLOS for graduate curricula must describe advanced content “knowledge of the literature of the discipline” and skills required for “ongoing student engagement in research and/or appropriate professional practice and training experiences” (SACSCOC Standard 9.6).

In some cases, graduate schools and graduate councils have identified general learning outcomes that apply to all graduate programs. For example, Michigan State University identified three goals for both master’s and doctoral programs:

- Acquire advanced knowledge and a deeper understanding of the skills and knowledge in their disciplines
Develop a sense of responsibility as well as an understanding of the ethical dimensions of the discipline
Develop the competence, knowledge, and independence for the realization of leadership potential. (p. 151, Funk & Klomprens, 2006)

Similarly, the Graduate School at Cornell University identifies a common set of four proficiencies for graduate programs that include progressively more advanced student learning outcomes for master’s and doctoral candidates for two of these proficiencies. Note the additional SLOs and bolded language, which describes more advanced SLOs:

- **Contribution to Scholarship (Master’s)**
 - **Make a contribution** to the scholarship of the field.
- **Contribution to Scholarship (Doctoral)**
 - **Make an original and substantial contribution** to the discipline.
 - **Think originally and independently** to develop concepts and methodologies.
 - **Identify** new research opportunities within one’s field.
- **Research Skills (Master’s)**
 - **Learn** advanced research skills.
 - **Synthesize** existing knowledge, identifying and accessing appropriate resources and other sources of relevant information and critically analyzing and evaluating one’s own findings and those of others.
 - **Apply** existing research methodologies, techniques, and technical skills.
 - **Communicate** in a style appropriate to the discipline.
- **Research Skills (Doctoral)**
 - **Demonstrate** advanced research skills.

- **Synthesize** existing knowledge, identifying and accessing appropriate resources and other sources of relevant information and critically analyzing and evaluating one's own findings and those of others.
- **Master application** of existing research methodologies, techniques, and technical skills.
- **Communicate** in a style appropriate to the discipline.

Note the use of behavioral language in these SLOs that describes higher -level skills in Bloom's Taxonomy (behaviors that correspond to higher levels of cognition such as analysis, synthesis, and evaluations). Additional information about writing measurable SLOs, Bloom's Taxonomy, and creating curriculum maps can be found on the web site (URLs are listed below).

Faculty should also be considerate of context when writing SLOs. While some verbs found on Bloom's Taxonomy may seem to have a low level of cognition, the context in which the verb is used can bring the seemingly low level verb to a higher level of knowledge, skill, or attitude.

For example, "Identify the state capital of each state of the United States" would certainly seem to be the lowest level of cognition on Bloom's Taxonomy. However, when used in a different context the same verb can indicate a higher level of expectation. For instance, "Identify an appropriate rehabilitation plan for a patient recovering from a full knee replacement."

Evaluating Student Learning Outcomes

When writing or reviewing SLOs, consider the following guidelines and expectations:

- Student learning outcomes should be written in measurable language. They should describe knowledge, skills, abilities, dispositions, and/or attitudes in behavioral terms that imply direct measures of student learning (either by direct observation of student performance or evaluation of a student work product).
- Student learning outcomes should be written in language that students, parents, and individuals outside the discipline will understand.
- The number of SLOs written for a course or program is less important than the level of expertise represented by the knowledge, skills, and abilities described in the SLOs. A course with high-level expectations might be described with a small number of SLOs that describe complex skills that assume acquisition of lower-level knowledge and skills in pre-requisite courses.
- Graduate level SLOs should describe expectations for student learning and achievement that clearly represent higher-level of cognition (analysis, synthesis, evaluations) or describe an advanced context greater than those expected of undergraduate students.
- Student learning outcomes **are not** any of the following:
 - course goals,
 - course descriptions,
 - a list of course topics,
 - course content outlines,
 - course assignments,

- descriptions of teaching techniques,
- learning activities, or
- course processes or procedures.

References

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