



Assessment

Handbook for Academic Programs

LSU Health Sciences Center at Shreveport

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Introduction to Academic Program Assessment

What is assessment?

Assessment is an iterative ongoing five-step process: 1. setting goals, objectives, and expected outcomes, 2. assessing current performance, 3. collecting results, 4. analyzing and reflecting, 5. implementing actions for improvement. Assessment involves gathering information and documenting results on a continual basis to identify successes and potential areas of improvement. In higher education, assessment can refer to processes at the classroom, course, academic program, or institutional levels. This handbook focuses on the assessment of student learning at the academic program level. Two primary questions guide academic program assessment: 1) 'What do we want students to learn in our program?' 2) 'How do we know that students are learning what we want them to learn in our program?'

Specifically, academic program assessment involves:

- Establishing clear, measurable, expected outcomes of student learning
- Ensuring that students have sufficient opportunities to achieve those outcomes through the academic program curriculum
- Systematically gathering, analyzing, and interpreting evidence to determine how well student learning matches our expectations
- Using the resulting information to understand and improve student learning within the academic program.

For assessment to be successful, it should produce actionable information that results in meaningful improvements to student learning. According to the American Association for Higher Education (AAHE), the nine principles of good practice for assessing student learning include the following:

1. The assessment of student learning begins with educational values. Our values should determine what we choose to assess. Otherwise, assessment risks becoming a check-box exercise to fulfill external requirements.
2. Assessment is most effective when it reflects understanding of learning as multidimensional, integrated, and revealed in performance over time. Practically, this entails assessing student learning in multiple ways, across multiple modalities, in a longitudinal manner, to capture the complexity of the learning process and student growth over time.
3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes. Assessment should be directly linked to the academic program's educational purpose, goals, and expectations. These shared goals form the foundation for the curricular and instructional design of the academic program and provide the focus for assessment.
4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes. Improvements in student outcomes will result from improvements to the curricula, instruction, and other academic and co-curricular experiences that lead to those outcomes.
5. Assessment works best when it is ongoing, not episodic. Assessment should measure progress towards goals over time, with a focus on continuous improvement.
6. Assessment fosters wider improvement when representatives from across the educational community are involved. Assessment should be a collaborative activity in which people from across the campus community and, as appropriate, beyond the campus community, share the responsibility for student learning and participate in the assessment process.
7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about. Assessment approaches should be designed to address meaningful questions of interest to stakeholders.
8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change. Assessment is most effective when practiced in a setting that values, prioritizes, and invests in quality teaching and learning.
9. Through assessment, educators meet responsibilities to students and to the public. We have an obligation to provide information to internal and external stakeholders about the extent to which students are meeting goals and expectations. An even deeper obligation exists to continuously improve our academic programs for the betterment of our students and communities.

Why participate in assessment?

Faculty participate in assessment constantly by regularly designing courses around what they want students to learn, creating methods to assess student learning (in the form of exams, assignments, and other classroom activities), and using those methods in concert with observations and experience to revise course content and instructional techniques. Academic program assessment formalizes these assessment activities and generates data that can be used across the program to drive improvements and decision-making, communicate to current and prospective students and their parents, and serve as evidence to accrediting bodies and funding agencies.

The main purposes of program assessment are as follows:

1. **To inform:** the assessment process should reveal the extent to which students achieve intended outcomes and clarify the strengths and weaknesses of the academic program.
2. **To improve:** the assessment process should produce information regarding how to improve teaching and learning at the academic program level.
3. **To prove:** the assessment process should demonstrate what the academic program is accomplishing to internal and external stakeholders and be used to support external accountability activities, including compliance with accreditation requirements.
4. **To support:** the assessment process should produce actionable, meaningful information that enables data-based decisions at the academic program level.

All academic programs that award a credential (i.e., a degree or certificate) are REQUIRED to participate in assessment.

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) requires outcomes assessment of all educational programs, administrative support services, academic and student services, and general education competencies.

As explained in Section 7: Institutional Planning and Effectiveness of the [2018 SACSCOC Resource Manual for the Principles of Accreditation](#):

“An institutional planning and effectiveness process involves all programs, services, and constituencies; is linked to the decision-making process at all levels; and provides a sound basis for budgetary decisions and resource allocations.”

Specifically, SACSCOC Standard 8.2.a outlines assessment requirements for educational programs:

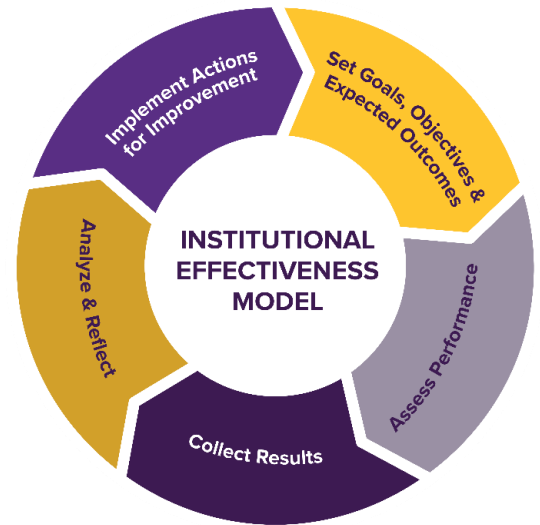
Standard 8.2.a The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of seeking improvement based on analysis of the results for student learning outcomes for each of its educational programs. (Student Outcomes: Educational Programs)

Overview of Academic Program Assessment at LSUHSC-S

Louisiana State University Health Sciences Center at Shreveport (LSUHSC-S) is committed to continuous improvement of its educational programs based on evidence from ongoing systematic assessment. The faculty of each educational program is responsible for the planning and assessment process which entails the following components:

- Identify goals, objectives, and expected student learning outcomes
- Assess performance
- Implement actions for improvement based on results

These essential elements are defined in an assessment plan adopted for each educational program and implemented by the program faculty. The assessment planning and reporting process occurs over an annual cycle. In this cycle, expected student learning outcomes, measures, and targets are submitted in the fall, and findings, action plans, and analyses are reported by the summer of the following year.



Institutional Effectiveness Model

To provide structure and maintain consistency for the documentation of the assessment process, LSUHSC-S licenses WEAVE, a web-based assessment planning and reporting system. WEAVE documents the planning and assessment processes at LSUHSC-S that support continuous improvement and evidence-based decision-making. The Office of Institutional Planning, Effectiveness, & Accreditation coordinates the institution's assessment program and reviews the information in WEAVE. WEAVE data is used for internal and external purposes (e.g., accreditation reports, integrated, institution-wide planning efforts, etc.).

While faculty may employ various approaches to assess and enhance student learning, the following best practices should be incorporated:

- Programs should have clearly defined and measurable student learning outcomes that focus on knowledge, skills, and values.
- Assessment measures should clearly identify criteria for success.
- Assessment measures should be independent from course grades.
- Multiple assessment methods should be used including direct measures.
- Data and information should be collected over time and analyzed longitudinally.
- Improvements in the program should be planned and enacted in response to the findings.
- The faculty who teach in the program should be involved in defining the learning outcomes, selecting the related assessment measures, analyzing the results, and determining appropriate improvements in the program.
- Learning outcomes should align with the institutional mission and strategic goals.

Developing an Academic Program Assessment Plan: Program Mission

How do you develop a mission statement?

Mission statements enable the academic program to define its purpose within the context of the greater institutional mission. The program mission statement should effectively communicate to internal and external stakeholders what the program is, what it does, and for whom. It should state in specific terms how the program contributes to the education and careers of its graduates.

To develop a mission statement, program faculty should discuss the following questions:

- What is the purpose of the program? For example, does it exist to prepare students for specific types of careers or graduate education?
- Who are your primary stakeholders? Indicate who benefits from the program and its graduates.
- What are the most important functions, activities, services, and offerings of the program?
- How does the program support the missions of the institution, school, and/or department?

The mission statement should be specific and unique enough that it differentiates the academic program.

Developing an Academic Program Assessment Plan: Student Learning Outcomes

What are student learning outcomes?

Student learning outcomes (SLOs) describe the specific, measurable knowledge, values, or skills that students will be able to demonstrate upon completing the academic program using precise language focused on the student, as opposed to the program. SLOs directly relate to the program’s identified goals and address the specific behaviors students must demonstrate to prove that the program is making progress towards their goals.

To develop SLOs, examine each of your program’s goals. For each goal, ask:

- “What specifically would students have to do to convince us that this goal was being achieved?”
- “How would we prove to others that students are achieving this goal?”

SLOs should be **SMART**:

Specific

- Stated in definite language, SLOs should describe the specific knowledge, values, or skills graduates from the program are expected to demonstrate.

Measurable

- Data related to the SLO should be readily available, and the data collection process should be feasible considering available time and resources.

Aggressive but Attainable

- In the spirit of continuous improvement, program faculty and staff should determine an assessable criterion for success or benchmark for the SLO that will progressively move the program closer to achieving its goals.

Results-oriented and Time-bound

- SLOs should specify what students’ levels competence should be after a finite period (e.g., 5% improvement in pass rates on the state licensure exam in the next year). These specifications may be based on experience, previous assessment results, external requirements, local, state, or national benchmarks, etc.

Example SLOs:

- Students will be able to identify historical periods of English literature
- Students will be able to apply differential calculus to model rates of change in time of physical and biological phenomena
- Students will be able to describe the function of key economic institutions
- Students will be able to construct effective messages for diverse audiences
- Students will be able to locate, interpret, evaluate, and use professional dietetics literature to make evidence-based practice decisions.

Writing knowledge based SLOs

When constructing knowledge based SLOs (i.e., describing what we want graduates of the academic program to know), it may be helpful to consider Bloom’s Taxonomy (Bloom & Krathwohl, 1956; Revised by Krathwohl, 2002), presented below. The taxonomy presents hierarchical levels of knowledge ranging from simple (remembering) to complex (creating). Lower levels of knowledge serve as necessary preconditions for higher levels of expertise. Each cognitive ‘level’ is associated with specific demonstrable actions and abilities. Write SLOs with action verbs corresponding to the academic program’s desired level of student performance.

Category	Description	Key Verbs
Create	Produce new or original work	Design, assemble, construct, conjecture, develop, author, investigate
Evaluate	Justify a stand or decision	Appraise, argue, defend, judge, select, support, value, critique, weigh
Analyze	Draw connections among ideas	Differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test
Apply	Use information in new situations	Execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch
Understand	Explain ideas or concepts	Classify, describe, discuss, explain, identify, locate, recognize, report, select, translate
Remember	Recall facts and basic concepts	Define, duplicate, list, memorize, repeat, state

Writing affective or value based SLOs

When constructing *affective or value based SLOs* (i.e., describing what we want graduates of the academic program to value, take interest in, appreciate, feel, etc.), the following classifications may be helpful to consider:

Category	Description	Key Verbs
Accepting	Demonstrates a willingness to participate in the activity.	Ask, choose, describe, follow, give, hold, identify, locate, name, point to, reply, select, use
Responding	Shows interest in objectives, phenomena, or activities by seeking them out.	Answer, Assist, compile, conform, discuss, greet, help, label, perform, practice, present, read, recite, report, select, tell, write
Valuing	Internalizes an appreciation for the objectives, phenomena, or activities.	Complete, describe, differentiate, explain, follow, form, initiate, invite, join, justify, propose, read report, select, share, study work
Organizing	Begins to compare different values and resolves conflicts between them to form an internally consistent system of values.	Adhere, alter, arrange, combine, compare, complete, defend, explain, generalize, identify, integrate, modify, order, organize, prepare, relate, synthesize
Characterizing by Value	Adopts a long-term value system that is pervasive, consistent, and predictable.	Act, discriminate, display, influence, listen, modify, perform, practice, propose, qualify, question, revise, serve, solve, use, verify

Writing skill based SLOs

When constructing *skill based SLOs* (i.e., describing what we want graduates of the academic program to be able to do), the following classifications may be helpful to consider:

Category	Description	Key Verbs
Perception	Using senses to obtain cues to guide action.	Choose, describe, detect, differentiate, distinguish, identify, isolate, relate, select, separate
Set	Readiness to take action.	Begin, display, explain, move, proceed, react, respond, show, start, volunteer
Guided Response	Knowledge of the steps required to perform a task.	Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, manipulate, measure, mend, mix, organize, sketch, work
Mechanism (Basic Proficiency)	Performs tasks in a habitual manner, with a degree of confidence and proficiency.	Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, manipulate, measure, mend, mix, organize, sketch, work
Complex Overt Response (Expert)	Skillful performance of tasks involving complex movement patterns.	The key verbs are the same as Mechanism but will have adverbs or adjectives that indicate that the performance is quicker, better, more accurate, etc.
Adaptation	Modifies movement patterns to account for problematic of novel situations.	Adapt, alter, change, rearrange, reorganize, revise, vary
Origination	Creates new movement patterns to account for problematic or novel situations; Creates new tasks that incorporate learned ones.	Arrange, combine, compose, construct, design, originate

Common verbs/verb phrases to avoid when writing SLOs

- Appreciate
- Become familiar with
- Become aware of
- Learn
- Know
- Understand
- Demonstrate knowledge
- Demonstrate understanding

*** These verbs are vague and not measurable, and thus, should not be used to specify SLOs.*

How many student learning outcomes does my program need to assess?

Most programs assess around three to five SLOs, but this decision is entirely up to program faculty and staff. Each program goal should be assessed with at least one SLO, and SLOs should be representative of the knowledge, values, and skills students should have acquired throughout the course of the academic program.

Developing an Academic Program Assessment Plan: Assessment Methods

What are assessment methods?

Assessment methods refer to a wide variety of tools and techniques that educators use to evaluate, measure, and document learning progress and skill acquisition. Selection of assessment methods can only be accomplished after, first, clearly articulating program SLOs and, second, ensuring that the academic program curriculum provides students with learning experiences relevant to the SLOs. Assessment methods should be directly tied to program SLOs and curriculum. Otherwise, the assessment process will fail to produce meaningful data and risks wasting both time and resources.

Types of assessment methods

Assessment methods are typically categorized as direct or indirect:

Direct assessment refers to any method of collecting data that requires students to demonstrate acquired knowledge, skills, or values. Direct assessment refers to evidence gathered from performance-based observation rather than an assessment of the perceptions of students or faculty.

Indirect assessment refers to any method of collecting data that requires reflection of student learning, skills, or behaviors, rather than a demonstration of it. Indirect methods can support and contextualize direct methods of assessment.

The best assessment practices utilizes both direct and indirect methods to paint a more complete picture of student learning and achievement.

The following assessment method inventory lists potential direct and indirect strategies to consider:

Direct Assessment Methods	
Course Data	<ul style="list-style-type: none"> • Objective Tests • Essay Tests • Embedded Questions and/or Assignments • Other Classroom Assessment Techniques
Individual Projects/Performance	<ul style="list-style-type: none"> • Written Products • Oral Presentations • Poster Presentations • Structural/Situational Assessments
Summative (End of Program) Performance	<ul style="list-style-type: none"> • Standardized Tests • Locally Developed Exams • Capstone Experiences • Dissertation/Thesis • Internships/Professional Applications • Portfolios
Collaborative Activities	<ul style="list-style-type: none"> • Research and Group Projects • Online Group Activities (e.g., records of interactions in discussion forums)
Indirect Assessment Methods	
Self-Assessment/Reflection	<ul style="list-style-type: none"> • Student Journals • Self-Critiques
Interviews and Surveys	<ul style="list-style-type: none"> • Satisfaction Measures (e.g., seniors, alumni, employers, graduate school advisors, parents) • Performance Reviews (e.g., alumni, employers, graduate school advisors) • Exit Interviews • Focus Groups • Follow-up Alumni Interviews • External Reviewer Interviews (conducted by objective, external expert)
Archival Measures	<ul style="list-style-type: none"> • Transcript Analysis • Syllabus Audit • Library or Resource Use Statistics

Tips for selecting assessment methods

- *Questions to consider:*
 - Will the assessment strategy answer questions that are important and meaningful to the program?
 - Does the strategy align with the outcome being assessed?
 - Is the strategy feasible given available financial resources and time?
 - Will the strategy result in useful information about the strengths and weaknesses of the program?
- *Use existing information whenever possible:* Exams, assignments, or projects in key program courses can be used for program-level assessment if they are consistent across course sections and representative of program requirements.
- *Use capstone experiences, dissertation/thesis, or senior course assignments:* These are typically common to all students completing the program and demonstrate the breadth and depth of students' acquired knowledge and skills.
- *Strive to use multiple measures to assess each SLO:* This increases confidence that the results through assessment are accurate, consistent, and replicable.
- *Do not reinvent the wheel:* Take advantage of published assessment tools in your discipline, such as rubrics or surveys, as opposed to developing your own.

Why are course grades not suitable as a program assessment method?

Course grades are useful to evaluate individual students' performance in a course. Course grades do not demonstrate what, specifically, students have learned (or not learned) from a course and may incorporate additional criteria, such as attendance, participation, and effort, that do not directly reflect learning. Academic program assessment examines patterns of student learning across courses and requires the use of direct measures of learning to identify what students have learned (or not learned) and to drive improvements at the program level.

Setting benchmarks or standards for SLOs

- Student performance in the academic program can be compared to past levels of performance or to a different or broader group of students. Example benchmarks and questions to consider include the following:
 - Internal Peer Benchmark: How do our students compare to others within LSUHSC-S?
 - External Peer Benchmark: How do our students compare with those of other universities that are similar to LSUHSC-S?
 - Best Practices Benchmark: How do our students compare to the best of their peers?
 - Value-Added Benchmark: Are our students improving?
 - Historical Trends Benchmark: Is our program improving?
- Students in the academic program can be compared to a specific level of performance. Example levels and questions to consider include the following:
 - Local Standards: Are students meeting our own standards?
 - External Standards: Are students meeting standards set by someone else?

Guidelines to inform benchmark or standard selection:

- *Consider how the assessment results will be used:* If the purpose of assessment is to improve the academic program, the standard for success for the SLO should be set high.
- *Consider the consequences of setting the bar too high or too low:* If the bar is set too high, the program may not have the resources available to address all the identified areas needing improvement. If the bar is set too low, students may graduate the program without acquiring key competencies.
- *Consult external sources:* Professional standards, potential employers, alumni, peer programs, etc. can all be used to set and justify program standards and benchmarks.
- *Set performance levels that represent minimal competence for each dimension on a rubric:* Program faculty may have higher expectations for some aspects of an assignment (e.g., grammar and word choice on a research paper) than for others (e.g., effectively integrating information from primary research sources).
- *Consider previous assessment results:* If student performance has historically been far below the program's desired benchmark, adjust standards in the short-term to focus on continuous improvement towards the desired, more aggressive benchmark.

Closing the Loop

What is “closing the loop”?

Assessment is an iterative ongoing five-step process: 1. setting goals, objectives, and expected outcomes, 2. assessing current performance, 3. collecting results, 4. analyzing and reflecting, 5. implementing actions for improvement. The cycle must be completed and repeated to see whether the changes have produced the desired result. This last critical step in assessment is commonly referred to as “closing the loop”.

Reporting assessment results

For assessment results to be used, they first need to be summarized, compared against specified benchmarks and targets, and reported.

- **Tallies:** Tallies refer to simple counts (i.e., the number of students demonstrating a particular type or level of performance). For example, faculty could tally the number of students who earned a specific rubric rating or selected a specific response on an exam question.
- **Percentages:** Percentages are typically more meaningful than presenting tallies and facilitate peer and historical comparisons across distinct groups of students. For example, faculty could report the percentage of students who earned a specific rubric rating or selected a specific response on an exam question and examine the percentage change in these values over time.
- **Aggregates:** In many cases, multiple items on a rubric, exam, or survey relate to a single SLO; accordingly, tallies or percentages of students who exhibited a particular type or level of performance across all the relevant items may be appropriate to use. For example, 80% of students correctly responded to the four exam questions targeting understanding of research design, but 40% responded correctly to the two questions targeting understanding of quantitative analysis.
- **Averages:** Averages, including the arithmetic mean, median, and mode, can be used to summarize the central tendency of assessment results and to compare results to standard benchmarks.
- **Qualitative Summaries:** Qualitative assessment methods (e.g., reflective writing, focus groups, open-ended survey questions) can be analyzed via read-throughs and grouped listings. Read-throughs involve quickly reading qualitative results to get a general sense of common responses. Grouped listings involve separating or tallying qualitative results into common, discrete categories (e.g., 10% of alumni indicated that performing a group research project was most influential to their learning in the program on an open-ended survey item, whereas 60% mentioned that participating in a practicum experience was most influential).

Assessment reports should include a description of the sample of students participating in assessment and a summary of the assessment results attained from each method. After the assessment results have been appropriately summarized, they should be compared against the associated benchmark or target. Then, for each result, determine if:

- **“Met”:** The finding meets the minimal acceptable level of student performance.
- **“Partially Met/Not Met”:** The finding does not meet the minimal acceptable level of student performance. Student performance needs to be improved.

***NOTE:** The goal of academic program assessment is to drive continuous improvement. Identifying areas in need of improvement does not constitute “failure” and, on the contrary, is essential to guide forward action and promote positive change. ACADEMIC PROGRAMS WILL NOT BE JUDGED ON THEIR RESULTS. However, programs will be evaluated on the extent to which they use assessment results to make meaningful improvements over time.*

Using assessment results

After collecting and analyzing assessment data, decisions need to be made collectively to determine whether/what changes will be made. Using assessment results effectively is the most challenging, yet most critical, component of the assessment process. Assessment, by itself, does not result in improved student learning. Assessment results, along with professional judgment, must be reflected upon and used to make decisions that result in improved student learning.

The following guidelines will ensure that the use of assessment results is fair, ethical, and responsible:

- Make assessments planned and purposeful. Faculty and staff should have a clear understanding at the outset of why the program is engaging in assessment and the types of decisions that assessment will inform.
- Focus assessments on important learning goals and outcomes.
- Assess teaching and learning processes, not just outcomes, to make sense of outcomes.
- Actively involve those with a stake in decisions stemming from the results in discussions about assessment and use of results.
- Communicate assessment information widely and transparently.
- Discourage others from making inappropriate interpretations of assessment results. For example, communicate the limitations of assessment techniques, sampling, and other factors that could affect the accuracy and replicability of the results.
- Do not hold people accountable for things that they cannot control.
- Do not penalize faculty and staff for disappointing assessment results.
- Do not let assessment results alone dictate decisions. Decisions should be based on sound professional judgment.
- Promote the use of multiple sources of information when making decisions.
- Keep faculty, students, and staff informed on how assessment findings are being used to inform decisions.

What should be considered when assessment results indicate “partially met/not met”?

Assessment results may prompt consideration of changes to the following areas of the academic program:

Changes to Curriculum	Changes in teaching practices Revision/enforcement of prerequisites Revision of course sequence Addition of courses Deletion of courses
Changes to Academic Processes	Modification of frequency or schedule of course offerings Improvements to technology Changes in personnel Additional training or professional development Modification to student support (advising, counseling, tutoring, etc.) Revision of admission criteria Additional resources (expanded instructional spaces, funding for student research, increase faculty)
Changes to Assessment Plan	Revision of SLOs Revision of measurement approaches Collection of additional data

What should be considered when assessment results indicate “met”?

Findings do not have to be bad to improve. Although assessment results may indicate “met,” faculty should be proactive in seeking ways to enhance their programs. For example, faculty may consider setting more challenging goals or targets, implementing new or revised action plans, establishing new/different SLOs, etc.

Remember, the purpose of assessment is to drive continuous improvement.

Celebrate your program’s success and recognize your faculty and staff!
