



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Academic Assessment Best Practices Guide

I. Assessment Basics.....	2
What is Assessment	2
Purpose of Assessment	2
Institutional Mission and 2030 Strategic Plan	2
Accreditation with The Higher Learning Commission.....	2
Academic Program Review	3
Elements of Assessment	5
Components of Effective Assessment.....	5
General Studies Assessment	6
Program Level Assessment	6
II. Getting Started	6
Developing an Assessment Plan	6
Identifying and Articulating Outcomes	6
Steps to Writing Program Goals.....	8
Writing Effective Student Learning Outcomes (SLOs)	8
Steps to Writing SLOs.....	9
III. Implementation	11
Collecting Assessment Data	11
Analysis of Assessment Data.....	12
Closing the Loop.....	13
Helpful Templates	14
IV. Transforming Assessment at MSU Denver	14
Contact:.....	14



Curriculum, Academic Effectiveness, and Policy Development Academic Program Review

I. Assessment Basics

What is Assessment?

Purpose of Assessment

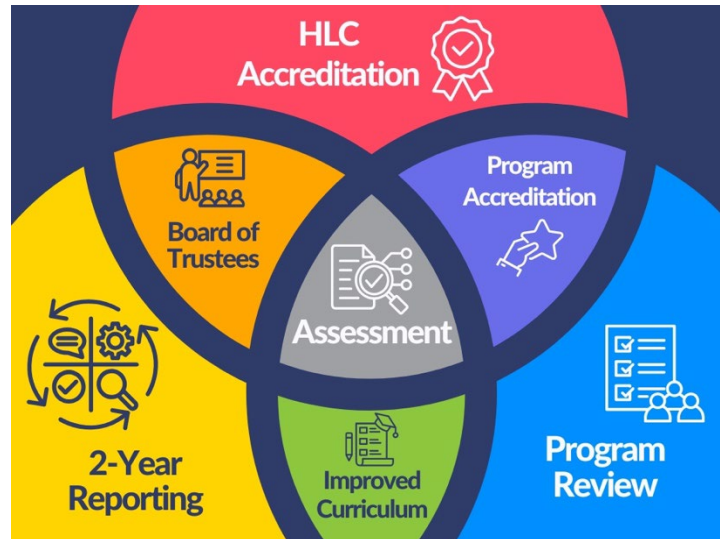
Elements of Assessment

Components of Effective Assessment

Levels of Assessment

General Studies Assessment

Program-level Assessment



What is Assessment

Assessment is a key component of the academic program review process used to evaluate and improve student learning and program effectiveness. University-wide, every major should have established assessment practices that include individualized, measurable program goals, student learning outcomes, established assessment methods, data collection, analysis, and implementation of changes.

This guide is designed to assist programs with the development or enhancement of effective assessment practices.

Purpose of Assessment

While assessment serves multiple purposes, the primary goal is to enhance student learning, which is essential for all educational institutions.

Assessment serves to evaluate student learning to provide a measure of knowledge, skills, and competencies. Quality assessment practices offer valuable feedback to both students and instructors, guiding instructional decisions and highlighting areas for improvement. Additionally, assessment ensures accountability and drives continuous improvement by identifying areas where programs can be enhanced.

Institutional Mission and 2030 Strategic Plan

The practice of assessment is central to the [University's mission](#): *"To provide a high-quality, accessible, enriching education that prepares students for successful careers, postgraduate education and lifelong learning in a multicultural, global and technological society."*

Accreditation with The Higher Learning Commission

MSU Denver is accredited by The Higher Learning Commission (HLC), one of six federally recognized regional accreditors.



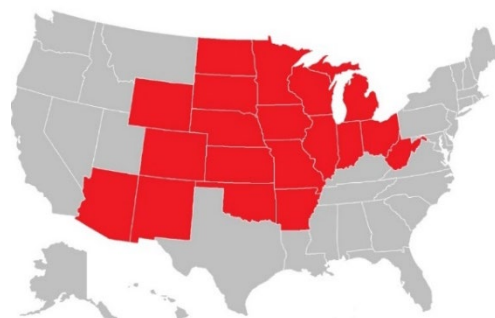
Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Why is this important?

Although accreditation is a voluntary form of external review, it is critical to universities for several reasons, including ensuring universities meet high quality standards, as well as enhancing credibility, which helps students in terms of the transferability of credits and future employability.

In addition to providing a meaningful assessment of institutional quality and credibility, maintaining accreditation with the HLC is a non-negotiable requirement set forth by the U.S. Department of Education for universities to receive federal funding and participate in federal student loan programs. The HLC underscores the importance of effective assessment practices in order to remain in good standing with accreditation in its [Guiding Values](#) and defined [accreditation criteria](#).



The HLC is one of 6 regional accreditors, encompassing 19 states across the U.S.

According to the fourth Guiding Value,

“A process of assessment is essential to continuous improvement, and therefore a commitment to assessment should be deeply embedded in an institution’s activities. Assessment applies not only to student learning and educational outcomes but to an institution’s approach to improvement of institutional effectiveness.

For student learning, a commitment to assessment would mean assessment at the program level that proceeds from clear goals, involves faculty at all points in the process, and analyzes the assessment results; it would also mean that the institution improves its programs or ancillary services or other operations on the basis of those analyses. Institutions committed to improvement review their programs regularly and seek external judgment, advice or benchmarks in their assessments. Because in recent years the issues of persistence and completion have become central to public concern about higher education, the current Criteria direct attention to them as possible indicators of quality and foci for improvement, without prescribing either the measures or outcomes.”

From this Guiding Value, [Criterion 3: Teaching and Learning for Student Success](#) requires that “The institution demonstrates responsibility for the quality of its educational programs, learning environments and support services, and it evaluates their effectiveness in fulfilling its mission. The rigor and quality of each educational program is consistent regardless of modality, location or other differentiating factors.” Specifically:

3.E. Assessment of Student Learning

The institution improves the quality of educational programs based on its assessment of student learning.

3.F. Program Review

The institution improves its curriculum based on periodic program review.

[Academic Program Review](#)

In addition to the pursuit of continuous improvement, supporting the University’s mission, and satisfying the requirements of the HLC, another purpose of assessment is to enrich the area of [Academic Program Review](#).



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

As adopted by the Board of Trustees and outlined in the [University Policy Library](#) (Chapter 5, Section 4), Academic Program Review (APR) exists to evaluate the educational programs offered by the University in a consistent, thorough way for the purpose of maintaining or enhancing the academic quality, efficiency, and accountability of programs.

APR Processes

Program reviews provide a cyclical, comprehensive assessment of the strengths, challenges, and opportunities for improvement for all majors included in more than 40 academic departments. The primary focus of a program review considers factors associated with achieving and maintaining high quality degree programs and certificates.

The program review process is divided into two main parts: the periodic review of a program, and an accompanying program improvement process (called 2-year program progress reporting), which operates between program reviews.

1. Program Review: programs undergo a review every 7 years; all programs follow a permanent, University-wide schedule, which can be found on the [Academic Program Review](#) website.
2. 2-Year Program Progress Reporting: a program improvement process that operates in 2-year cycles and repeats 3 times during the 6-year interim between program reviews.

The results of program reviews are reported to the Provost, Deans, Chairs, faculty members, and the University's Board of Trustees. In addition, the results may be made available to University committees involved in planning, assessment, and budgeting processes.

The Focus on Assessment in Program Review

Whether a program is undergoing a review or progressing through the 2-year reporting cycle, assessment is central to the process.

During a program review (every 7 years), there are several key areas of focus, including assessment, curriculum, faculty, students and student satisfaction, online presence, and resources.

With 2-year reporting cycles (during the 6-year interim), programs are asked to complete reports using a template provided by APR. The expectation is for programs to set goals for each major and track progress on a semesterly basis through the end of year two. Evidence of assessment, complete with data, should be included in each report. Reports are evaluated by fellow faculty who serve on APR's 2-Year Reporting Committee.

2-Year reports enable program reviews to be more data-rich, and the ongoing collection of assessment information assists the University with evidencing accreditation requirements are being met with the HLC.

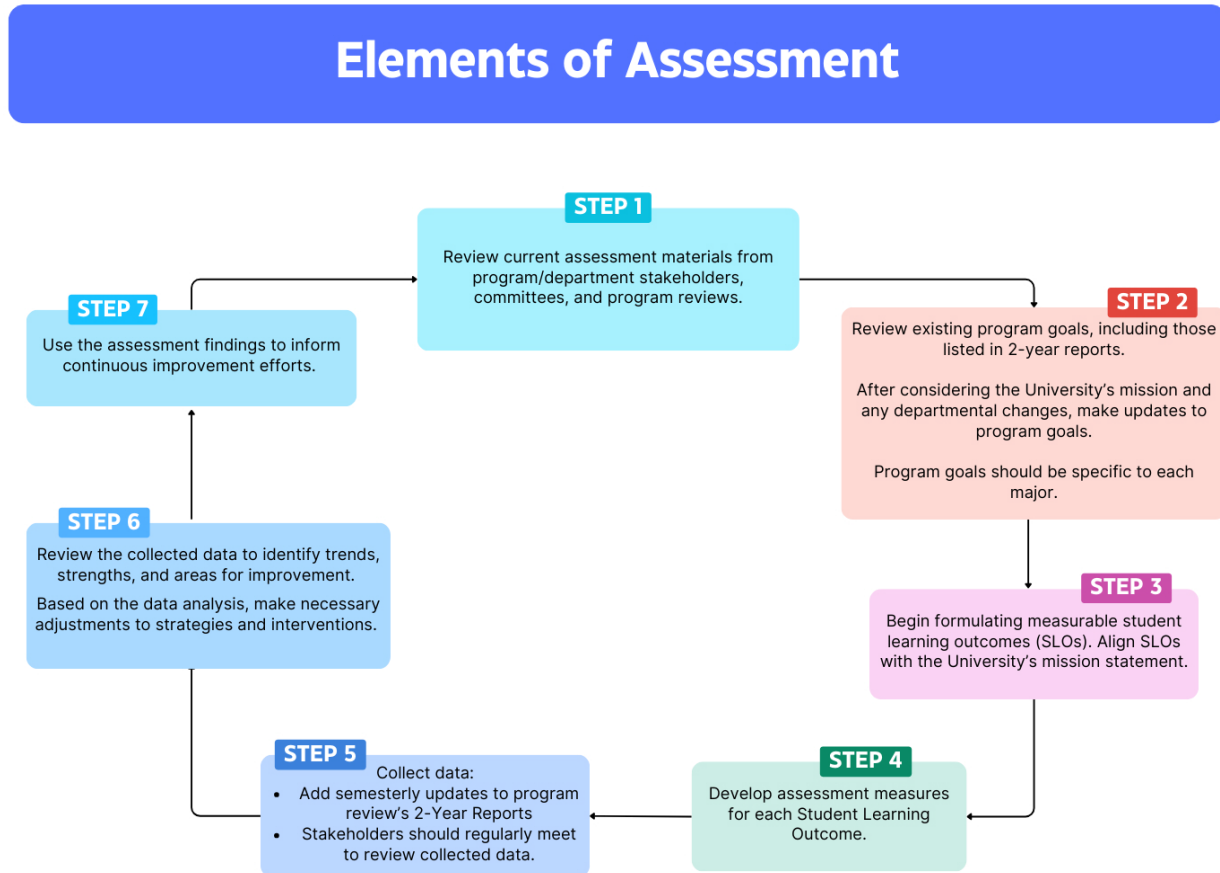
Each program/department has a folder in SharePoint where all 2-Year Reports are available: [Academic Program Review Records and Reporting](#). If needed, please contact Corinne Landry or Lou Moss with folder access requests.



Curriculum, Academic Effectiveness, and Policy Development Academic Program Review

Elements of Assessment

Effective assessment involves a variety of stakeholders, incorporates data from multiple areas, considers the University's mission, and is completed in steps.



Components of Effective Assessment

Effective program assessment involves several key components:

1. **Clear Objectives:** Establishing well-defined, measurable goals and outcomes for the program that align with the institution's mission and the needs of stakeholders. Program goals should be specific to each major.
2. **Comprehensive Data Collection:** Gathering qualitative and quantitative data from various sources, including student performance, feedback from faculty, alumni, and employers, to get a holistic view of the program's effectiveness.
3. **Alignment with Standards:** Ensuring the program meets accreditation standards and industry benchmarks, which helps maintain quality and relevance.



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

4. **Continuous Improvement:** Using assessment results to make informed decisions about curriculum changes, teaching methods, and resource allocation to enhance the program continuously.
5. **Stakeholder Involvement:** Engaging faculty, students, alumni, and employers in the assessment process to ensure diverse perspectives and buy-in for any changes.
6. **Transparency and Communication:** Clearly communicating assessment processes, criteria, and results to all stakeholders to foster trust and collaboration.
7. **Regular Review and Feedback:** Conducting periodic reviews and providing timely feedback to ensure the program remains dynamic and responsive to changing needs.

General Studies Assessment

Visit the [General Studies Program](#) website to learn more about a series of courses designed to accompany the coursework done within the major to create broadly skilled graduates who learn, experience, and grow. Contact Dr. Todd Laugen, Director of General Studies, for assistance in this area.

Program Level Assessment

Effective program assessment provides answers to three questions:

1. What is the program trying to accomplish?
2. How well is the program accomplishing its intended outcomes?
3. How can the program improve?

II. Getting Started

Developing an Assessment Plan

Whether starting from scratch with a new program or enhancing an existing plan, developing an assessment plan offers numerous benefits by providing a structured approach to evaluating progress and identifying areas for improvement, ensuring that goals are met efficiently. Effective assessment plans should articulate:



Identifying and Articulating Outcomes

Outcomes can be at the University, program or course level. Learning outcomes may be defined as the change in a student's knowledge or skills as a result of the student's experience(s). The focus of the learning outcomes should be on the results of learning, and not on the process used to accomplish the learning. Having too many outcomes can be confusing and harder to achieve and assess. It is often advantageous to keep it simple with a core set of learning outcomes that make sense and have clear benefits for the students.



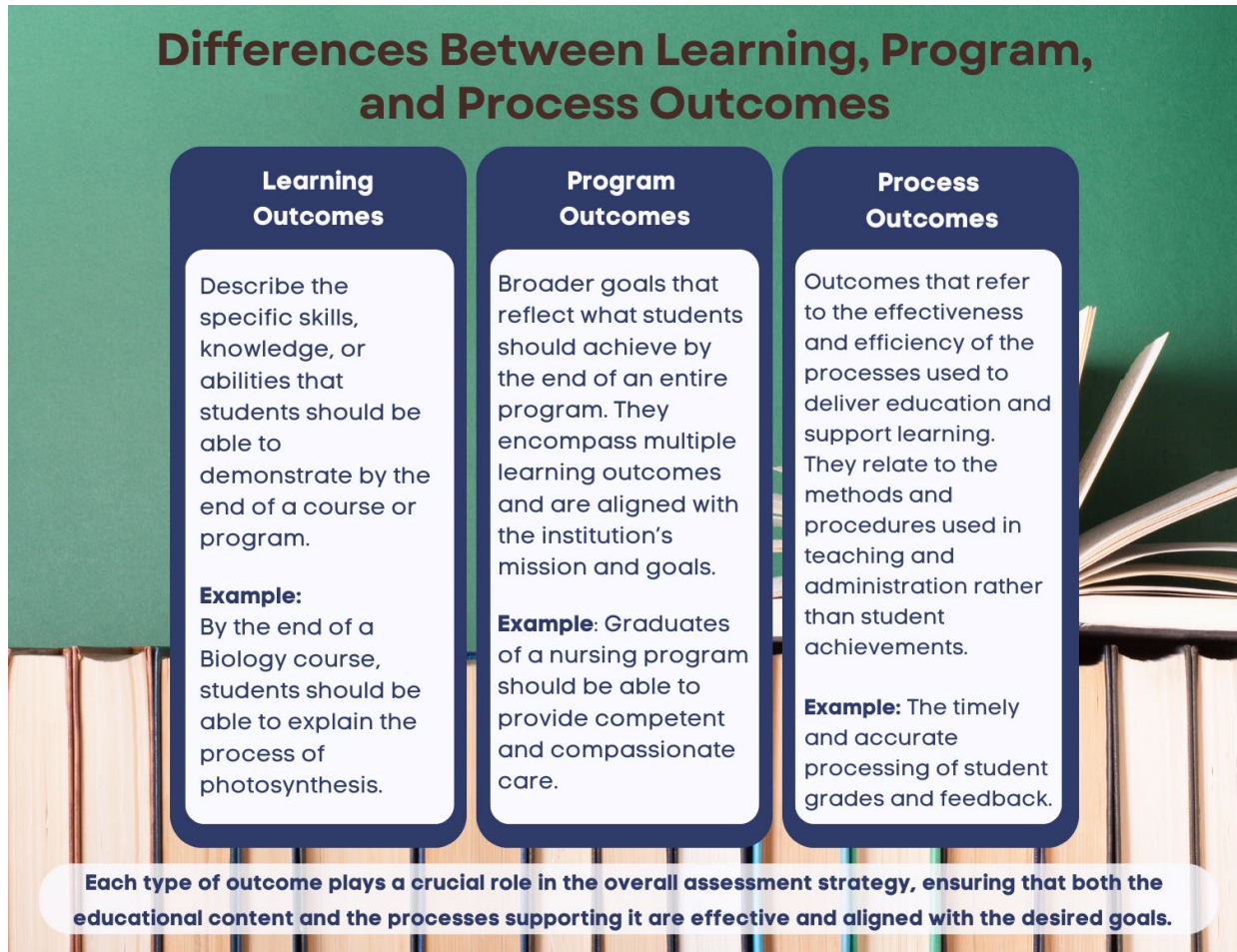
Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Try to keep the following questions in mind when developing learning outcomes:

- What are your goals? What knowledge or skills do you want students to possess when they finish the course/program?
- How will you know when a change in the student's knowledge or skills has occurred? What specifically will be different about the students?
- How will you assess the degree to which the students have achieved the learning outcome?

Program goals are broad statements that describe what the program aims to achieve. While there may be overlap with department goals, program goals should be specific to the major and align with the institution's mission and strategic plan.





Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Steps to Writing Program Goals

- 1. Identify the Purpose:**
 - Determine what you want to achieve with your program.
 - Align goals with the mission and vision of your academic department or the University.
- 2. Use Specific Language:**
 - Avoid vague terms. Be clear and precise about what you want to accomplish.
 - Example: Instead of "Improve student skills," use "Increase student proficiency in critical thinking and problem-solving."
- 3. Make Goals Measurable:**
 - Include quantifiable criteria to track progress.
 - Example: "Increase the percentage of students scoring above 80% on the final exam from 70% to 85%."
- 4. Set Achievable Targets:**
 - Ensure goals are realistic and attainable within the given timeframe and resources.
 - Example: "Implement a new tutoring program to support at least 50 students per semester."
- 5. Ensure Relevance:**
 - Goals should be relevant to the program's objectives and beneficial to students.
 - Example: "Develop industry partnerships to provide internship opportunities for 30% of students."
- 6. Time-Bound:**
 - Specify a timeframe for achieving the goals.
 - Example: "By the end of the 2025 academic year, increase student retention rates by 10%."

Example of a Measurable Program Goal

Goal: By the end of the 2028 academic year, increase the percentage of students who complete their degree within four years from 60% to 75%.

Specific: Focuses on degree completion within four years.

Measurable: Increase from 60% to 70%.

Achievable: Based on current resources and support systems.

Relevant: Aligns with the institution's commitment to student success.

Time Bound: Targeted for the end of the 2028 academic year.

Writing Effective Student Learning Outcomes (SLOs)

Student Learning Outcomes (SLOs) define what students should know, do, or value by the end of a course. Well-crafted SLOs guide course design, teaching strategies, and assessment methods, ensuring alignment between course objectives and measurable student achievements.



Curriculum, Academic Effectiveness, and Policy Development Academic Program Review

Steps to Writing SLOs

1. Identify the Essential Knowledge and Skills

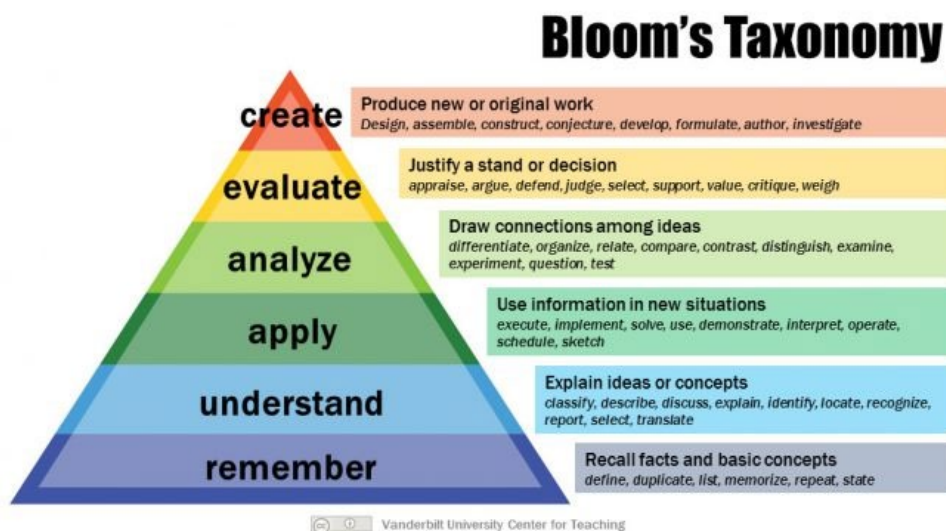
- Ask: What core knowledge, skills, or attitudes are essential for students in this course?
- Example: Essential skills for a biology course might include analyzing scientific data or cell structures.

2. Choose Observable and Measurable Verbs

Data points need to speak directly to Student Learning Outcomes/Program Learning Outcomes. If these outcomes are difficult to assess, they need to be revised and made clear.

Student Learning Outcomes must be appropriate and based on their level of classes they take. First year students are generally “introduced” to concepts and theories while third- and fourth-year students have had many classes reinforcing this knowledge base (see below). [Blooms Taxonomy Action Verbs](#) are based on levels of learning used to delineate first year courses from senior level courses. Use action verbs to clarify what students will accomplish.

Bloom’s Verbs by Level:



3. Define the Conditions and Criteria

- State the context (conditions) in which the skill or knowledge will be demonstrated and how well (criteria) students need to perform.
- Example: “Analyze scientific data from laboratory experiments with 80% accuracy.”

4. Align SLOs with Course Goals and Assessments

Ensure each outcome aligns with broader course or program goals and can be evaluated through course assessments like projects, exams, or presentations.

5. Define Key Performance Indicators (KPIs):

Identify specific metrics that will help you measure progress towards each goal.



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Common Pitfalls and Tips:

- **Avoid Vague Language:** Replace vague terms like “understand” with specific, observable actions.
- **Focus on the Student, Not the Instructor:** SLOs describe what students will do, not what the instructor will teach.
- **Use Measurable Criteria:** Make sure the outcome can be assessed. Avoid outcomes that cannot be measured objectively.

Examples of Student Learning Outcomes

Example 1: Communication Skills

- **SLO:** Students will be able to deliver effective oral presentations using appropriate visual aids.
- **Data Collection:** Assess presentations using a rubric that evaluates clarity, organization, visual aids, and delivery.

Example 2: Critical Thinking

- **SLO:** Students will be able to analyze and interpret data to make informed decisions.
- **Data Collection:** Use case studies and problem-solving exercises assessed through rubrics that measure analytical skills and decision-making.

Example 3: Research Skills

- **SLO:** Students will be able to conduct independent research and present their findings in a well-organized written report.
- **Data Collection:** Evaluate research papers using a rubric that assesses research methodology, analysis, and writing quality.

Example 4: Teamwork

- **SLO:** Students will be able to collaborate effectively in team projects.
- **Data Collection:** Use peer evaluations and self-assessments to measure teamwork skills, along with instructor observations.

Video: [A 2-Minute Tutorial on Writing Student Learning Outcomes](#)

Assessment Methods

Assessment methods are tools and techniques used to evaluate whether students have achieved the SLOs.

Best Practices

- **Use a Variety of Methods:** Combine direct (e.g., exams, projects) and indirect (e.g., surveys, interviews) assessment methods.



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

- **Ensure Validity and Reliability:** Choose methods that accurately measure what they are intended to and produce consistent results.
- **Align with SLOs:** Ensure each assessment method directly measures the corresponding SLO.
- **Be Practical:** Consider the resources and time available when selecting assessment methods.

Example Methods:

- **Direct:** Capstone projects, standardized tests, portfolios.
- **Indirect:** Alumni surveys, employer feedback, student self-assessments.

III. Implementation

The final step occurs in three parts:

1. Collecting the necessary data.
2. Analyzing the results to determine if objectives were met.
3. Close the loop by using the results to make decisions and changes to improve student learning and/or institutional effectiveness.

Data analyses do not need to be overly complicated. Their purpose is to provide useful information on whether or not objectives were met. Data can be misleading, so be sure to discuss data in relation to goals and objectives. For instance, capstone courses are commonly used to identify strengths and weaknesses in student learning across the entirety of the program. These data should not be used to evaluate the performance of the capstone course instructor.

Collecting Assessment Data

Collecting assessment data involves several key steps to ensure that the information gathered is accurate, relevant, and useful for evaluating performance and making improvements. Each program should outline a data collection plan, outlining what data will be collected, by whom, and when. Programs with specialized accreditation should follow the data collection requirements set by their accrediting bodies. Data will be reported at the end of each 2-Year Program Progress Reporting cycle.

To ensure data quality, it is important to use reliable and valid instruments for data collection. Programs may use a combination of direct and indirect measures to collect data. Examples include:

Direct Measures

- **Exams and Quizzes:** Use standardized tests to assess knowledge and skills.
- **Assignments and Projects:** Evaluate written assignments, projects, and presentations using detailed rubrics.
- **Portfolios:** Collect and review student work over time to assess progress and development.

Indirect Measures

- **Surveys and Questionnaires:** Gather feedback from students about their learning experiences and perceived outcomes.



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

- Focus Groups: Conduct discussions with students to gain insights into their learning and experiences.
- Alumni Feedback: Collect feedback from graduates about how well the program prepared them for their careers.

Rubrics

- Develop detailed rubrics for each SLO to ensure consistent and objective assessment.
- Rubrics should include criteria for different levels of performance (e.g., excellent, good, satisfactory, needs improvement).

Example of a Data Collection Process

Student Learning Outcome: *Students will be able to critically evaluate scientific literature.*

- **Direct Measure:** Assign a literature review project where students must evaluate and summarize scientific articles. Specify the course and semester in which it will be assigned.
- **Indirect Measure:** Conduct a survey asking students about their confidence in evaluating scientific literature before and after the assignment.
- **Rubric:** Use a rubric to assess the quality of the evaluation, including criteria such as understanding of the content, critical analysis, and clarity of writing.
- **Data Analysis:** Compare rubric scores and survey results to assess the effectiveness of the assignment in achieving the SLO.

Analysis of Assessment Data

Analyzing assessment data is a critical step in the assessment process. By systematically reviewing and analyzing assessment data, programs can ensure they are providing the best possible education and continuously evolving to meet the needs of their students and the broader community. Data analysis will identify trends, strengths, and areas for improvement, which programs should use to make informed decisions about curriculum changes and teaching strategies. The data analysis process includes:

1. **Data Collection:** Gather data from various sources identified during the development of SLOs and program goals.
2. **Data Organization:** Organize the collected data in a systematic way, using tools like spreadsheets or specialized software to facilitate analysis.
3. **Data Analysis:** Use statistical methods or qualitative analysis to identify trends, strengths, and areas needing improvement. This can involve comparing current data with past performance or benchmarks.
4. **Interpretation:** Interpret the results to understand what the data is indicating about the program's effectiveness. Were performance targets met? What may have contributed to the outcome? What strengths and weaknesses in student performance were identified?



Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Closing the Loop

"Closing the loop" in assessment refers to the process of using assessment results to make informed changes and then evaluating the effectiveness of those changes. By closing the loop, programs can ensure that assessment is not just a one-time activity but an ongoing effort to enhance educational quality and effectiveness. This ensures that the assessment cycle is complete and leads to continuous improvement.



Step 1: Review Assessment Data

Analyze the collected data to identify strengths and areas for improvement. What do the assessment results mean for the program?

Step 2: Deploy Your Improvement Plan

Based on the assessment findings, what adjustments will be made to improve the curriculum, course delivery, or other processes in this program?

Step 3: Reassess

After implementing changes, reassess to determine if the desired improvements have been achieved.

Step 4: Document and Share Results

Record the outcomes of the reassessment and share the findings with relevant stakeholders to ensure transparency and continuous improvement.

Using Assessment Data

The graphic below provides examples of cross-departmental use of assessment data.





Curriculum, Academic Effectiveness, and Policy Development

Academic Program Review

Helpful Templates

A variety of optional templates are available for download on the Assessment Resources Website. These templates are intended to serve as a guide for programs to formally articulate their assessment practices. Available templates include:

- [Student Learning Outcomes \(SLO\) Template](#) – A structured format for defining and articulating measurable learning outcomes.
- [SLO Data Reporting Template](#) – A standardized document for organizing and reporting assessment data.
- [Rubric Example](#) – A sample rubric to assist in evaluating student performance and aligning assessments with learning objectives.

IV. Transforming Assessment at MSU Denver

MSU Denver is taking steps to improve assessment practices campus wide. Programs should strive for continuous improvement to align with the University's strategic plan. The usefulness of assessment is dependent upon application of the accepted standards, as outlined above. Please reach out to the Office of Curriculum, Academic Effectiveness, and Policy Development if additional guidance is needed. Thank you.

Contact:

Lou Moss M.A., PMP

Director of Academic Program Review

lmoss3@msudenver.edu

Corinne Landry

Program Review Coordinator

colandry@msudenver.edu

Updated February 2025