



Student Learning Assessment Handbook

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 **SIENA**college



Siena College Student Learning Assessment Handbook

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I. Introduction to Student Learning Assessment

Purpose: The purpose of assessing student learning is to determine the extent students are learning, ascertain if student learning should be improved, and identify strategies to make those improvements.

Academic program assessments must be:

Useful- Assessment processes help faculty and staff make appropriate decisions about improving academic programs.

Cost-Effective- Value is in proportion to time and resources used.

Planned- Assessments are clearly and purposefully aligned with [student learning outcomes](#).

Sustainable- Resources needed for the implementation of recurring, well-executed purposeful [assessments](#) are reasonable, available, and ongoing.

Accurate & Truthful- Results can confidently be used to make appropriate decisions and improvements.

Academic Program Assessment is Effective When:

1. Assessment measures and indicators **define** minimally **acceptable performance criteria** or [targets](#).
2. Assessment is viewed as a **comprehensive, systematic** and **continuous** process.
3. Assessment is viewed as a **means for self-improvement**.
4. Assessment **measures** are **meaningful**.
5. Assessment utilizes **multiple measures** and **multiple sources**.
6. Assessment is used as a **management tool**.
7. Assessment **results** are **valued** and are genuinely **used to improve** academic programs and processes.
8. Assessment involves the **participation and input of all faculty and staff**.
9. Assessment **includes students**.

Principles of Assessment

The **principles** that underlie student learning assessment at Siena College:

1. Assessment works best when it is **ongoing**, not episodic.
2. Assessment should be meaningful, useful, manageable, and directly linked to the College [mission](#).
3. The assessment of student learning begins with **educational values**.
4. Assessment is more likely to lead to improvement when it is part of a larger set of conditions that **promote change**.
5. Assessment is most effective when it reflects an understanding of learning as **multidimensional**, integrated, and revealed in performance over time.
6. Assessment works best when the academic programs it seeks to improve have clear, explicitly stated purposes.
7. Assessment requires attention to [student learning outcomes](#) but also to the experiences that lead to those outcomes.
8. Assessment of [student learning outcomes](#) is to improve learning, not to evaluate faculty.
9. Student learning outcomes **originate with faculty**.
10. The **faculty** have primary responsibility for the development, implementation, and maintenance of assessment activities.

11. Assessment makes a difference when it addresses issues and priorities determined by the academic program faculty.
12. Assessment and to the [continuous](#) cycle of a unified, coherent system to evaluate student learning.
13. Student learning may be assessed using both **quantitative** and **qualitative** data.
14. Non-aggregated data that is gathered that is used only for the purposes of assessment remains confidential.
15. Academic programs evaluated by external accrediting organizations may meet additional requirements but must adhere to College assessment guidelines.
16. The **involvement of all stakeholders** including students, alumni, faculty, administration, staff and advisory boards in the assessment process is encouraged and valued by the College.
17. Assessment fosters wider improvement when representatives from across the educational community are involved.
18. Through assessment, educators meet responsibilities to students and to the public.

II. Student Learning Assessment Process

Student Learning Assessment Cycle (Process steps in parentheses)

The [continuous improvement](#) (CI) Learning Assessment Cycle consists of four parts (PDCA Cycle):

1. **Plan**- Organize assessment and determine best methodology (steps 1-5)
2. **Do**- Do assessment (step 6)
3. **Check**- Analyze and interpret the results (step 7, 8)
4. **Act**- Make changes, determine if changes improved student learning (steps 9-11)

Student Learning Assessment Process (Assessment Handbook Sections in parentheses)

1. Define the academic program mission (I., II.)
2. Define student learning outcomes (III.)
3. Organize for assessment (I., II.)
4. Inventory existing and needed assessment measures and methods (IV.)
5. Identify assessment criteria for each learning outcome (III. & IV.)
6. Collect the data (IV.)
7. Analyze & interpret the results (V.)
8. Provide feedback (V.)
9. Implement changes (V.)
10. Monitor changes (V.)
11. Review changes (V., VI.)

A **student learning assessment plan** is a method to organize and document the process of assessing student learning outcomes. As mentioned, assessment is a continuous improvement process. To improve requires a clear articulation of the:

- academic program's purpose (mission),
- student learning outcomes (what is deemed as being successful in the academic program),
- methodology (what is needed to implement the assessment),
- criteria (to determine how well you are currently doing),
- proposed changes (needs to improve), and
- monitoring implemented changes to see if student learning did improve.

Mission

The mission or purpose of the academic program is the foundation for student learning assessment. Specifically, the mission identifies what the academic program does, for whom, and describes the learning environment. The mission expresses the unique characteristics of the academic program and thus, distinguishes the academic program from other academic offerings.

Additionally, the mission should include how the program contributes to the education and careers of students graduating from the academic program. The mission should be aligned with department, school, and college missions.

III. Student Learning Outcomes

Student learning outcomes are the skills, knowledge, competencies, and affects that students are expected to exhibit as a result of successfully completing the academic program. In other words, student learning outcomes are a compilation of what graduates are expected to know, perform, or feel:

- **Performance skills:** What can the student do?
- **Cognitive skills:** What does the student know?
- **Affective skills:** What does the student care about?

Recommendations for Developing Academic Program Student Learning Outcomes

- Review course syllabi, assignments, tests and any additional materials. Categorize the course content into several groupings such as recognition of factual information, application and comprehension, critical thinking and problem-solving, reflection of attitude or opinion.
- List student learning outcomes for each course in the academic program.
- Identify **three or more student learning outcomes** that are important and strongly related to the mission.
- Focus on a few student learning outcomes that can lead to improvements of the academic program.
- Identify and construct learning outcome statements that adhere to what is suggested below.

Student Learning Outcomes Should:

- Be supported by the mission of the academic program,
- Clearly indicate the level and type of competence that is required of graduates of an academic program,
- Be distinctive and specific,
- Framed in terms of the academic program,
- Be simple,
- Describe intended learning outcomes and not the actual outcomes,
- Be focused on the learning result and not the learning process, and
- Stated such that the outcome can be measured by more than one assessment method.

Student Learning Outcome Criteria

The criteria identify the minimum level of proficiency or standard that determines if the student learning outcome is achieved or met. The criteria also include the proportion of students who are expected to meet that standard. For some student learning outcomes, all students would be expected to meet the minimum level of proficiency. For other student learning outcomes, 100% achievement may be unrealistic. Therefore, a percentage of students would be a more appropriate [target](#). For previously measured student learning outcomes, the former target may become the current baseline.

Example:

80% of graduates pass the *written portion of the standardized test on the first attempt.*

Student learning outcome criteria are:

1. Contemplate the academic program as it would be if all students performed perfectly, no limits to resources existed, and all potential challenges were overcome.
2. Identify the academic program as it currently exists given the typical ability of students, resources, and potential challenges.
3. Set the criteria for the student learning outcome between #1 and #2.

[Bloom's Taxonomy](#) of Educational Objectives is a classification system useful for identifying student learning outcomes. Bloom's Taxonomy consists of three student learning domains: **cognitive, skills, and affective**. A brief description of the three domains is given below.

The **cognitive** domain comprises of six intellectual skill levels arranged by increasing difficulty, academic rigor, and complexity. The six cognitive levels are listed in the table below with a brief description of each.

Cognitive	Description
1. Knowledge	<p>Ability to observe and remember previously learned information, knowledge of specific facts, terms, concepts, principles, ideas, events, places, etc., mastery of subject material.</p> <p>Student Learning Outcome Verbs: Arrange, define, describe, duplicate, enumerate, identify, indicate, know, label, list, match, memorize, name, reads, recall, recognize, record, relate, repeat, reproduce, select, state, view, underline</p>
2. Comprehension	<p>Ability to understand information and grasp material, translating knowledge from one form to another, interpreting, comparing and contrasting material, predicting consequences and future trends.</p> <p>Student Learning Outcome Verbs: Classify, cite, convert, defend, describe, discuss, distinguish, estimate, explain, express, generalize, give examples, identify, indicate, infer, locate, paraphrase, predict, recognize, report, restate, review, rewrite, select, suggest, summarize, tell, trace, translate, understand</p>
3. Application	<p>Ability to use information, learned material, methods, concepts, theories, principles, laws and theories in new situations, problem solving using required knowledge or skills.</p> <p>Student Learning Outcome Verbs: Act, administer, apply, articulate, assess, change, chart, choose, collect, compute, construct, contribute, control, demonstrate, determine, develop, discover, dramatize, employ, establish, extend, give examples, illustrate, implement, include, inform, instruct, interpret, investigate, manipulate, operate, organize, participate, practice, predict, prepare, preserve, produce, project, provide, relate, report, schedule, shop, show, sketch, solve, teach, transfer, translate, use, utilize, write</p>

Cognitive	Description
4. Analysis	<p>Ability to break down material and recognition of organization structure, identification of components and relationships between components, recognition of patterns and hidden meanings.</p> <p>Student Learning Outcome Verbs: Analyze, appraise, breaks down, calculate, categorize, compare, contrast, correlate, criticize, debate, determine, diagram, differentiate, discriminate, distinguish, examine, experiment, focus, identify, illustrate, infer, inspect, inventory, limit, outline, point out, prioritize, question, recognize, relate, select, separate, subdivide, solve, test</p>
5. Synthesis	<p>Ability to combine parts or apply prior skills and knowledge to produce a new whole, integrate ideas into a solution, generalize from given facts, propose a plan of action, formulate new classification methods.</p> <p>Student Learning Outcome Verbs: Adapt, anticipate, arrange, assemble, categorize, collaborate, collect, combine, communicate, compile, compose, construct, create, design, devise, develop, explain, express, facilitate, formulate, generate, incorporate, individualize, initiate, integrate, intervene, manage, model, modify, negotiate, organize, perform, plan, prepare, produce, propose, rearrange, reconstruct, reinforce, relate, reorganize, revise, set up, structure, substitute, validate, write</p>
6. Evaluation	<p>Ability to judge and assess the value of theories and presentations, based on their value, logic or adequacy, for a given purpose, compare and make choices based on reasoned argument, verify the value of evidence, recognize subjectivity.</p> <p>Student Learning Outcome Verbs: Appraise, argue, assess, attach, choose, compare, conclude, contrast, criticize, critique, decide, defend, enumerate, estimate, evaluate, grade, interpret, judge, justify, measure, predict, rate, reframe, revise, score, select, support, value</p>

Affective learning addresses attitudes, values, interests, appreciation, and feelings toward people, ideas, places and objects. Values refer to views and ideas that an individual believes. Affective outcomes range from receiving or willingness to participate in an activity to adopting a value system that directs behavior. A brief description of each category is provided below.

Affective	Description
1. Accepting	<p>Willingness to participate in an activity or to attend to a stimulus, getting and holding the attention of students.</p> <p>Student Learning Outcome Verbs: Ask, choose, describe, follow, give, hold, identify, locate, name, point to, reply, select, use</p>
2. Responding	<p>Actively participates, demonstrates interest in an object, activity or phenomena, seeks or pursues this object, activity or phenomena.</p> <p>Student Learning Outcome Verbs: Answer, assist, compile, conform, discuss, greet, help, label, perform, practice, present, read, recite, report, select, tell, write</p>
3. Valuing	<p>Value or worth attached to an object, activity or phenomena, varies from simple acceptance to commitment.</p> <p>Student Learning Outcome Verbs: Complete, describe, differentiate, explain, follow, form, initiate, invite, join, justify, propose, read report, select, share, study, work</p>
4. Organization	<p>Compare and contrast and resolve conflict to build a consistent value system, emphasis on comparing and synthesizing values.</p> <p>Student Learning Outcome Verbs: Adhere, alter, arrange, combine, compare complete, defend, explain, generalize, identify, integrate, modify, order, organize, prepare, relate, synthesize</p>
5. Characterization by Value	<p>Adopt a value system for a length of time that contributes to a particular "lifestyle" (e.g., directs behavior).</p> <p>Student Learning Outcome Verbs: Act, discriminate, display, influence, listen, modify, perform, practice, propose, qualify, question, revise, serve, solve, use, verify</p>

Skills (not part of the original classification system) describes psychomotor movement patterns, and responses. A brief description of each is provided below.

Skills	Description
1. Perception	<p>Uses the senses to obtain cues to guide action, ranges from awareness of stimulus to translating cue perception into action.</p> <p>Student Learning Outcome Verbs: Choose, describe, detect, differentiate, distinguish, identify, isolate, relate, select, separate</p>
2. Set	<p>Readiness to take action, includes mental, physical, and emotional set (or readiness to act).</p> <p>Student Learning Outcome Verbs: Begin, display, explain, move, proceed, react, respond, show, start, volunteer</p>

Skills	Description
3. Guided Response	Knowledge of the steps required to perform a task, includes imitation and trial-and-error. Student Learning Outcome Verbs: Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, heat, manipulate, measure, mend, mix, organize, sketch, work
4. Mechanism	Perform tasks in a habitual manner, with a degree of confidence and proficiency. Student Learning Outcome Verbs: Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, heat, manipulate, measure, mend, mix, organize, sketch, work
5. Complex Overt Response	Skillful performance of motor acts involving complex patterns of movement. Student Learning Outcome Verbs: Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, heat, manipulate, measure, mend, mix, organize, sketch, work
6. Adaptation	Skillful performance of motor acts involving complex patterns of movement, modifies movement patterns to account for problematic or new situations. Student Learning Outcome Verbs: Adapt, alter, change, rearrange, reorganize, revise, vary
7. Origination	Creating new movement patterns to account for problematic or new situations, creates new tasks that incorporate learned ones. Student Learning Outcome Verbs: Arrange, combine, compose, construct, design, originate

SMART Student Learning Outcomes: *Specific, Measureable, Attainable, Results oriented, Timely*
 Define student learning outcomes that are **specific** to the academic program. Include in clear and definite terms the expected abilities, knowledge, values and attitudes a graduate from the academic program is expected to have. When assessment results are known, these student learning outcomes should create opportunity to make improvements in the academic program.

The intended outcome should be **measurable**, feasible to collect accurate and reliable data.

Consider **available resources** (e.g., staff, technology, assessment support, institutional level surveys, data) to determine whether the collection of data for the student learning outcome is a reasonable.

Devise assessments that are **attainable**, not necessarily perfect. As with student learning the improvement on the assessments are iterative too.

Determine the **time** period when the student learning outcome criteria and results will be attained. (e.g., 10% improvement in exam scores within one year, 90% satisfaction rating for next year, 10% improvement in student communication performance within two years).

Composition of a Student Learning Outcome

The following are the essential elements of a student learning outcome:

- **Action-** e.g., Recognize, identify, apply, synthesize, understand
- **Topic/Area-** e.g., diverse cultures, questionnaire design, geography
- **Context-** e.g., within Victorian Society, real world setting, to a public audience, use structures orally (Spanish)
- **Criteria-**e.g., construct independently, command of Spanish at the elementary level examine flawlessly

Examples:

Eighty percent of Industrial Psychology students will be able to correctly apply at least two distinct methods used to validate questionnaires that measure perceptions of learning.

All graduates will be able to successfully solve problems that address engineering economics issues such as life-cycle analysis and the selection of alternatives.

IV. Assessment Instruments and Methodology

Recommendations

Choose assessments that will provide **helpful** and **useful** information. The intention is that the assessment will provide information about student learning and progress. The best assessments are those in which inferences about potential changes in the academic program to improve student learning can be easily surmised from the assessment results. That said, the importance of matching the assessments to the student learning outcome is essential. Develop assessments that align to the student learning delineated for that outcome.

Assessment measures that are selected to assess student learning outcomes should be **appropriate** for the outcome (e.g. surveys to assess student satisfaction, portfolios to assess students' writing ability). Consider measures that provide results that are **easily interpreted** and **unambiguous**.

Select assessment instruments and methods that can be **managed internally** either by the academic program or jurisdiction. Assessments from external factors should be thoroughly vetted for potential unintended influences. Relevance to the academic program's mission and student learning outcomes needs to be taken into account. Results from external sources may yield less meaningful results due to the inability to separate the results from the intended purpose of the external assessment source.

Implement a [pilot study](#) or trial of the assessment. This will help to determine the scope of the assessment project and if it is feasible.

Recommended is the use of **multiple** assessments from different sources for each student learning outcome. More than one component of student learning outcome can be potentially examined with more specificity and accuracy with multiple assessments. Strive to identify multiple measurement approaches that are focused on academic program priorities, concerns, or unknowns. Inferences made from [triangulated](#) results are typically more credible and [valid](#) than those made from a single source.

[Normed reference tests](#) provide comparative data with a representative or aspirational group of students. Particular attention to the alignment of the student learning outcome to the intent of the normed reference test is warranted.

Assessments should be developed to identify **strengths** and **challenges** of the academic program that affect student learning. Although assessments that affirm student learning are valuable, they may not be as useful or meaningful as collecting evidence of student learning that has not been assessed previously.

Both **qualitative** and **quantitative** assessment data can be equally effective in ascertaining student achievement. The selection of assessment instruments and methodology should reflect the culture of the academic program.

Assessment measures that are already in use for **specialized program accreditations** are encouraged. Accreditation criteria should be the basis for in the design of assessment.

Identify assessment instruments and methods that have been or are currently being implemented. Assessment resources can be found on the Office of Institutional Effectiveness (OIE) web site: www.siena.edu/oie or contacting the office (assessment@siena.edu).

Assessment Method Selection

The following eight guidelines should guide the development of new assessments. In addition, faculty should also be given the opportunity to identify criteria they deem important and address their priorities and concerns.

1. **Relationship to assessment.** From the selected assessment, evidence of student learning for the targeted student learning outcome.
2. **Reliability.** A reliable assessment method is one that yields consistent responses over time.
3. **Validity.** Determining whether the selected assessment method measures what it was intended to measure.
4. Use **existing** assessments when possible.
5. **Timeliness, resources, and cost** are reasonable.
6. **Motivation.** Assessment methods that ensure adequate student participation in the assessment effort should be selected. Course-embedded assessment methods are often favored because they take advantage of existing classroom activities and are often associated with consequences that are good motivators for students, grades!
7. **Feedback:** Encourage faculty involvement by soliciting feedback from faculty.
8. **Appropriateness:**
 - Will the instrument or method provide results that are easy to understand and interpret?
 - Are the fluctuations in the results representative of changes in the academic program or something else?
 - Is the instrument appropriate for the specific outcome that you are assessing?

Types of Assessments

There are several types of assessment methods:

1. **Direct** measures require students to demonstrate their learning. (see list of examples below)
2. Surveys about student perceptions about learning are **indirect** methods of assessing student learning. (see list of examples below)
3. **Curriculum mapping** is an effective tool to verify alignment of the curriculum with the academic program student learning outcomes. (see example below)
4. **Institutional data** can be good indicators of student success, student engagement, and student involvement in their own learning. (see list of examples below)

Assessment Instruments

An inventory of some assessment methods are listed below.

1. **Direct**
 - Performance-based
 - Capstone course assignments
 - Capstone projects
 - Case studies, hypothetical situation responses
 - Writing
 - Essays
 - Minute papers

- Journals
- Research papers
- Course-embedded assignments
 - Course test items
 - Portfolio assignments (standard across the academic program)
- Exams and tests
 - National standardized exams and tests
 - State tests
 - Locally developed academic program exams
 - Course tests
 - Pre/post tests
 - Test-embedded questions (across several course sections)
- Hypothetical situations
 - Simulations
 - Case studies
- Certification and licensure exams
- Internship supervisor ratings
- Field experiences
- Other
 - Faculty or expert observations
 - Student peer observations
 - Class discussions
 - Student feedback
 - Group work

2. **Indirect**

- Performance appraisal of in class exercises
- Expert evaluation
- Surveys
 - National surveys
 - Institutional surveys
 - Student surveys
 - Alumni surveys
 - Employer surveys
 - Graduating seniors and graduates surveys
 - Non-returning student survey
 - Point of service surveys
 - Focus groups
- Advisory committees
- Structured interviews

3. **Curriculum Analysis**

- Curriculum mapping

4. **Institutional Data**

- Retention and graduation rates
- Acceptance into graduate / professional schools
- Pass rates in subsequent courses
- Campus and community engagement
- Number of times student changes his/her major

Instrument Descriptions

Descriptions of some of the assessment instruments listed above are given in this section. Questions about these assessments and those not listed should be directed to the Office of Institutional Effectiveness (OIE) or the School Assessment Coordinators.

1. Direct

A **rubric** is a pre-determined set of criteria and scoring nomenclature used to determine the adequacy of student learning. Criteria can be weighted differently; not all criteria need to be equal in the contribution to the total score. Rubrics help to identify and clarify the expectations of the assignment and how it will be reviewed. Sharing rubrics with students prior to the start of the assessment assignment is recommended.

Projects, senior thesis, reflective papers, and student research completed in **capstone** courses are excellent sources for student learning evidence and recommended to be used in student learning outcome assessments. They provide students an opportunity to demonstrate, in a complex manner, student knowledge and skills, showcase learning that is both cumulative and comprehensive, and make evident the extent of student progress from the student's entry into the academic program or from the beginning of the capstone experience. Capstone assignments can promote the synthesis of learning by requiring the development of a product or performance. Often, capstone projects are judged by an independent panel of faculty or graduates using pre-specified rubrics. As such, several faculty should be involved in the development of these rubrics or other assessment instruments.

Capstone Project Recommendations

- Ensure that the course assignments or projects accurately represent the academic program requirements.
- The use of periodic checkpoints or milestones is recommended to prevent difficulties which may affect a student's graduation.
- Maintain the curriculum and evaluation of assignments across all sections.
- Ensure that students understand and value the importance of the capstone experience.
- Secure administrative support before implementing. Inherently, capstone experiences have small class sizes and require more faculty-student interaction than traditional courses. As such, capstone courses tend to be more costly than other courses.
- Ensure student performance is not impaired due to "high stakes" of the project.

Course-embedded questions and assignments are predetermined questions and assignments that measure student learning. Although specific to the course, some course assignments especially those that are cumulative in nature, can be used for academic program assessment.

Minute papers refer to allowing a brief designated amount of time during class for students to respond to a question or prompt. This in-class writing exercise can provide an assessment of student writing, organization, originality, control of language, and comprehension of content.

Essays are typically used to assess student writing but may ascertain student, appreciation for art, acceptance of current issues, and reflection. Use of pre-defined rubrics will help students understand the expectations for the essay and facilitate scoring consistency across students and evaluators.

A **research paper** is an assessment method that can be used to evaluate students' abilities to organize, analyze, synthesize, and/or evaluate information that has been taught.

A **case study** is a focused, systematic, comprehensive examination of one instance of a phenomenon such as an event, program, process or person. Typically, they involve collection of qualitative and quantitative data such as observations, surveys, and interviews for an in-depth study of the phenomenon, or responses to hypothetical situations. Student learning can be assessed both quantitatively and qualitatively. Case studies tend to be expensive and time-consuming.

As **faculty** and **expert evaluators** or a panel of faculty or subject matter experts **observe** student practice or perform (e.g., music, communications, clinical) specific tasks. Sequencing, pacing, or simultaneous performing of multiple tasks can also be monitored. Students should have a clear understanding of the task to be performed and evaluation criteria before being observed. Employ rubrics or checklists to help improve inter-rater reliability.

Students are often the audience for their classmates and **observe** their work. Therefore, involving students as **peer evaluators** becomes an additional active learning experience, opportunity for students to contribute to the development of the assessment, and strengthens student understanding of the assessment criteria.

Portfolios are a sample of student work collected over a period of time. Examples include a collection of photographs, written assignments, computer programs, or lesson plans. Electronic portfolios are often used to facilitate storage, access, and assessment of these student work samples. Portfolios can also be used for student reflection. Portfolios are an easy means to assess growth or improvement. Typically, each assignment included in a portfolio is reviewed but not all submissions need to be graded. Rubrics may be embedded into the portfolio to evaluate the work submitted to the portfolio.

Examples of nationally available **standardized exams and tests include.**

- The Collegiate Learning Assessment (CLA),
- Measures of Academic Progress (MAP),
- Educational Testing Service (ETS) subject matter tests,
- Graduate Record Examination (GRE),
- The College Board,
- Psychology Area Concentration Achievement Test (PACAT), and
- The Chauncey Group DANTE (Statistics Exam).

Local exams and tests designed by faculty or administrative program used across several courses can measure student achievement of specific learning outcomes in a variety of settings and at different mastery levels.

Pre/post tests determine student growth, improvement, or the extent students have learned specific information or concepts over a specified amount of time.

Certain disciplines require that students sit and pass **certification** or **licensure exams**. Students' performance on these exams and their sub scores, when available, are an excellent source for assessment data.

2. Indirect

Institutional and program developed **surveys** are an easy and relatively cost-effective method of ascertaining student perceptions of student learning and their satisfaction with their learning experience.

Survey Item Recommendations

- Address one central theme.
- Be brief.
- Be precise.
- Present information in positive language.
- Avoid terms like *all*, *none*, *frequently*, or *sometimes*.
- Use as few items as possible.
- Pilot the survey.
- Establish content validity by asking other faculty or subject matter experts to review survey.

Alumni surveys may be used to ask graduates about their perceptions about the academic program, employment plans and graduate school acceptances. Alumni surveys are administered by the Career Center.

Focus groups or informal student discussions can be used to gain a better understanding of students' perceptions especially student responses on surveys. These discussions can provide more specific information and direction than survey item satisfaction ratings. Information may also be used to identify perceived strengths and weaknesses within the academic program.

Advisory committees comprised of work professionals, faculty in the discipline usually external to the academic program, or academic program alumni can help assess the relevance of the academic program, provide curricular guidance, and evaluate capstone projects. These external audiences afford additional perspectives potentially unique to faculty and students in the academic program.

Non-returning student surveys may be used to ask students about their perceptions about the academic program as well as why they are no longer enrolled in the academic program.

One-on-one **structured interviews** with students, faculty, employers, and alumni conducted by a trained interviewer are easy to develop but are time consuming to implement. Structured interviews are administered to all participants using the same set of questions or prompts in a sequence which is also invariable.

3. Curriculum Analysis

[Curriculum mapping](#) ensures that the content of the academic program is aligned and relevant to specified intended academic program student learning outcomes. As shown below, identifying the level of proficiency or mastery can also help determine if course student learning outcomes are aligned to those of the academic program. Additionally, a curriculum map can help determine if the academic program's course sequencing is appropriate.

Student Learning Outcome	Course I	Course II	Course III	Course IV	Course V
Student Learning Outcome 1	Introduction		Intermediate	Mastery	
Student Learning Outcome 2		Introduction	Intermediate		Mastery
Student Learning Outcome 3	Introduction	Intermediate		Mastery	
Student Learning Outcome 4		Introduction			Mastery

4. Institutional Data

Most **institutional data**, information aggregated for the entire college and in most cases by school and other majors can be obtained by contacting the Office of Institutional Effectiveness (OIE).

V. Reviewing and Interpreting Assessment Evidence

Review the information obtained from the assessment including:

- most recent assessment results,
- previous assessment results,
- debriefing from faculty on implementation,
- feedback on the assessment process, and
- input from students' perceptions on their value of the assessment process.

Below is a listing of potential changes that can be recommended for an academic program to improve student learning. Note that changes should be implemented as soon as feasible to assure the connection between recent assessment findings and the changes.

Changes to Curriculum

- changes in pedagogical practice
- revision or enforcement of prerequisites
- revision of course(s) sequence
- revision of content sequence within a course
- revision of course content
- addition or deletion of course(s)

Changes to Academic Processes

- modification of frequency or schedule of course offerings
- technology improvements
- technology expansion
- revision of advising standards or processes
- revision of admission criteria

Changes to Resources

- changes in faculty and staff
- implement additional training
- changes in facilities or allocation of space

Changes to Assessment Plan

- revision of intended learning outcome statement(s)
- measurement revisions
- collection and analysis of additional data and information
- changes in data collection methods

Monitor changes

A schedule to monitor the proposed changes should be developed. This timetable is threefold. First, when multiple changes are proposed, a schedule of implementation is advised. Second, the identification of changes that may be best implemented incrementally should also be articulated. Third, the time for the change to have an impact on student learning should be determined. The time to monitor the impact of the changes should be no less than that determined impact time.

Review Changes

After the scheduled time to monitor changes has elapsed, an evaluation of student learning should be repeated. Any improvement to student learning should be documented. Clarity on what recommended change produced differences in student learning should be carefully documented. From this review, potential assessments for the next iteration of the assessment cycle should be proposed.

VI. Faculty and Staff

Student Learning Assessment Committee (SLAC):

The purpose of the Student Learning Assessment Committee (SLAC) is to improve academic program (major, minor, certificate, core) assessment of student learning. This will be accomplished by providing assessment guidance and support as well as development and opportunities to share “best practices”. As such, SLAC will

- Provide guidance in the development of student learning outcomes.
- Identify and deploy assessment resources.
- Create opportunities for communicating “best practices” and experiences across all three schools.
- Be advocates for student learning assessment.
- Provide counsel to departments to help facilitate the submission of required assessment documents.
- Revise, if needed, current documentation and submission procedures to ensure a reasonable balance between required evidence and what is beneficial to the schools and academic departments.
- Develop and adopt an Assessment Cycle that:
 1. Emphasizes the importance of prioritizing student learning outcomes. Not all student learning outcomes need to be assessed annually.
 2. Recognizes that (a) using the results, (b) making appropriate changes, (c) determining or affirming if student learning has improved as well as (d) conducting the assessment(s) are integral in the assessment of student learning.

Academic Assessment Coordinators. Faculty members appointed by the Deans in their respective schools, the Academic Assessment Coordinators’ responsibilities include:

School:

- Participate on the School Curriculum Committee.
- Ensure that new course proposals have assessment plans that align with stated student learning outcomes.
- Be lead contact for faculty.
- Assist in the development and implementation of assessment training.
- Ensure planned assessments are being implemented. Help departments overcome challenges or obstacles to assessment.
- Provide counsel to departments to help facilitate the submission of required assessment documents.

Core:

- Work with Core Advisory Committee (CAC) to facilitate faculty discussions about new core assessments.
- Work with CAC to develop and implement new core assessments.
- Develop and implement opportunities to share best practices in assessment with faculty within each of the new core disciplines and Franciscan concerns.

College:

- Be an assessment advocate.
- Participate in the Student Learning Assessment Committee (SLAC) by attending meetings and contributing to the development and execution of SLAC activities and initiatives.
- Develop and implement opportunities to share best practices in assessment with faculty across schools.
- Work with the Office of Institutional Effectiveness (OIE) to ensure that meaningful student learning assessment is conducted across campus.

- Review academic program documentation. Work with the departments that have academic program assessment documentation that is unclear, incomplete, or does not depict student learning assessment.
- Propose additional assessment resources including web links for the College's assessment resource web page.

Faculty members in the various **majors/programs** are responsible for assessing the attainment of course learning outcomes and submitting assessment plans and reports to their **department heads**. The academic department heads are responsible for incorporating the academic assessment reports in their Annual Assessment Report.

The assessment process and structure are meant to be dynamic and reflect continuous change. The Student Learning Assessment Committee (SLAC), working with the Office of Institutional Effectiveness (OIE), **reviews** the Siena College assessment process and guidelines on a biannual basis and makes revisions to process and structure when deemed appropriate.

The **deans** and appropriate **school curriculum committees** support faculty and staff by providing leadership and support. The Schools, working with the Board of Instruction (BOI), Student Learning Assessment Committee (SLAC), and the Office of Institutional Effectiveness (OIE) are responsible for the coordination, review, and follow-up of assessment activities for their academic programs.

As the chief academic officer, the **Vice President for Academic Affairs** is responsible for overseeing the assessment process and for integrating the Summary Annual Assessment Report with the overall College assessment plan. The Vice President ensures that the annual assessment plans align with the overall College assessment plan and strategic plan.

VII: Common Misperceptions about Student Learning Assessment

Misconception 1: "The results of assessment will be used to evaluate faculty performance."

Nothing could be further from the truth. Faculty awareness, participation, and ownership are essential for successful program assessment, but assessment results should never be used to evaluate or judge individual faculty performance. The results of program assessment are used to improve programs.

Misconception 2: "Our program is working well, our students are learning; we don't need to bother with assessment."

The primary purpose of program assessment is to improve the quality of educational programs by improving student learning. In addition, various accrediting bodies mandate conducting student outcomes assessment including Siena's institutional accreditation agency, Middle States Commission on Higher Education (MSCHE).

Misconception 3: "We will assign a single faculty member to conduct the assessment. Too many opinions would only delay and hinder the process."

While it is a good idea to have one or two faculty members head the assessment process for the department, it is equally beneficial to have all faculty members involved and ideally, on board with the efforts of assessment. Each provides different perspectives and ideas for improving the academic program. Importantly, faculty members must understand and agree to the mission and student learning outcomes of the academic program.

Misconception 4: "The administration might use the results to eliminate some of the department's programs".

There are two types of evaluation processes: *summative* and *formative*. The purpose of summative program evaluation is to judge the quality and worth of a program. On the other hand, the purpose of formative program evaluation is to provide feedback to help improve and modify a program. Program assessment is intended as a formative evaluation and not a summative evaluation. The results of program assessment will only be used to improve the program and student learning.

Misconception 5: "Assessment is a waste of time and does not benefit the students."

The primary purpose of assessment is to identify what students are actually learning and to improve that learning. To this end assessments enhance and improve student learning, knowledge and growth and, therefore, are worthwhile.

Misconception 6: "We will come up with an assessment plan for this year and use it every year thereafter."

For program assessment to be successful, assessment must be an ongoing and continuous process. Both the academic program and the corresponding assessment should be improving.

Misconception 7: "Program assessment sounds like a good idea, but it is time-consuming and complex."

It is impossible to "get something for nothing." Effective program assessment will require faculty time and effort but does not have to be excessive.

Additional resources can be found on the Office of Institutional Effectiveness (IOIE) website: www.siena.edu/oie.

VIII: Glossary

Assessment: Methodology to determine the extent students are learning and if that learning is appropriate to the intentions of the program.

Assessment Cycle: Progression of assessment activities. Typically, the cycle consists of four parts (PDCA Cycle):

1. **Plan-** Organize assessment and determine best methodology
2. **Do-** Do assessment
3. **Check-** Analyze and interpret the results
4. **Act-** Make changes, determine if changes improved student learning

Assessment Plan: Stated student learning outcomes and assessment methodology used to evaluate those student learning outcomes.

Bloom's Taxonomy of Educational Objectives: Classification system useful for identifying student learning outcomes. Bloom's Taxonomy consists of three student learning domains: cognitive, skills, and affective.

Continuous Improvement (CI): Methods to constantly monitor and improve student learning based on assessment findings.

Criteria: Consists of two parts:

1. the acceptable minimal level of proficiency or target for that student learning outcome to be considered met or exceeded.
2. the proportion of students who will meet that acceptable level of proficiency.

Curriculum Mapping: a two dimensional grid used to detect if course student learning outcomes are aligned to the academic program student learning outcomes.

Direct Assessment Measures: Collection and evaluation of student learning evidence (e.g. capstone projects, final exam items, student samples of writing, oral presentations)

Formative Assessment: An evaluation that takes place during the course of a program to improve the program or evaluation methodology.

Goals: General aims of the program.

Indirect Assessment Measures: Perceptions or satisfaction ratings of student learning (e.g. student perceptions of learning, grades, alumni surveys, retention and graduation rates)

Measures: Information gleaned from assessment to determine the extent student learning has occurred.

Methods: Information needed to identify how the assessment will be conducted. This includes:

- instrument,
- scoring logic,
- sampling,
- timing, and
- who is responsible for implementing the assessment.

Mission: The purpose of the program. Specifically, the mission identifies what the program does, for whom, and describes the learning environment.

Normed Reference Tests: Tests accompanied by representative group information that may be used as a comparison.

Objectives: Clearly articulated statements of what students are expected to learn.

Pilot Study: Preliminary test or trial of the assessment or component of the assessment.

Program: Unique course of study with a distinctive set of student learning outcomes. This includes majors, minors, certificates, and sequence of courses.

Reliability: Consistency or stability of an assessment instrument across multiple administrations.

Summative Assessment: An evaluation conducted at the end of the program to determine if stated student learning outcomes were achieved.

Student Learning Outcomes: What is should be known, demonstrated, or achieved to be considered successful in the program.

Target: Minimum level of demonstrated proficiency to deem the student learning outcome as met or exceeded.

Triangulation: Use of multiple methods and/or data sources to assess student learning

Validity: Instrument measures what it is intended to measure.

IX: Assessment Report

Academic Assessment Information

Major/Program:					
For Academic Year: 2012-13		Date Submitted:		Department Head:	
Program/Major: Mission:					
Major/Program Student Learning Outcomes Students will be able to...	Assessment Cycle/ Academic Year Student Learning Outcome will be Assessed	Previously the Assessment Plan	Previously the Assessment Report		
		Assessment Procedures (Do-D)	Assessment Results (Check-C)	Use of Results (Act-A)	How did the Use of Results improve (or did not improve) subsequent Student Learning?
1.	Cycle: Year: 20xx- 20xx	Method: Sample (?): [] Yes [] No When: Instrument: Criteria:			
2.	Cycle: Year: 20xx- 20xx	Method: Sample (?): [] Yes [] No When: Instrument: Criteria:			
3.	Cycle: Year: 20xx- 20xx	Method: Sample (?): [] Yes [] No When: Instrument: Criteria:			

Assessment Cycle		
Code	Phase	Phase Description
P	Plan	Assessment is being planned
D	Do	Assessment is implemented
C	Check	assessment results being aggregated and interpreted
A	Act	Using assessment results and determining if changes improved student learning

Assessment Report Instructions/ Definitions: (in alphabetical order)

Assessment Plan: Description of how the student learning outcome will be evaluated. What will the student(s) demonstrate and how will it be observed and assessed?

Assessment Procedures: Description of how the student learning outcome will be evaluated. Specifically, what will the student(s) demonstrate and how will it be observed and assessed?

Method: Describes how the assessment will be implemented (e.g., class assignment, licensing exam, research paper)

Instrument: Means to collect evidence of student learning (ex. rubric, checklist, test, section or specific final exam questions, **course** assignment, research paper, oral presentation)

Sample: Will all students be assessed or a subset? Describe the sample.

When: At what point(s) and how frequently will assessment be implemented?

Criteria: Consists of two parts:

1. acceptable minimal level of proficiency or target for that student learning outcome to be considered met or exceeded.
2. proportion of students who will meet that acceptable level of proficiency.

Assessment Results: Summarize aggregated assessment information. Indicate if the levels of proficiencies were met.

Assessment Cycle: Not all student learning outcomes have to be assessed every year. Proposed is a four year cycle in which the actual assessment is implemented once every four years. Indicate where the student learning outcome is in the cycle and in what academic year the student learning outcome will actually be assessed (D). The cycle refers to the following designations:

P= Plan → assessment is being planned

D= Do → assessment is being done

C= Check → assessment results being aggregated and interpreted

A= Act → Using assessment results and determining if changes improved student learning

How did the Use of Results: improve (or did not improve) subsequent student learning? Did the modifications help or improve student learning? If so, briefly explain. If not, indicate.

Major/Programs Student Learning Outcomes: skills, knowledge, or affect that students should be able to demonstrate at a specified time/milestone in the program.

Use of Results: How were the results used or planned to be used? In other words, what will be modified to address any observed learning deficiencies?

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