Advancing Quality through the Assessment of Student Learning

Guidelines for Developing and Implementing an Assessment Plan

INTRODUCTION

OVERVIEW OF ASSESSMENT

ASSESSMENT IS…

"… a rich conversation about student learning informed by data."

(Marchese, 2008)

"… the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development."

(Palomba & Banta, 1999)

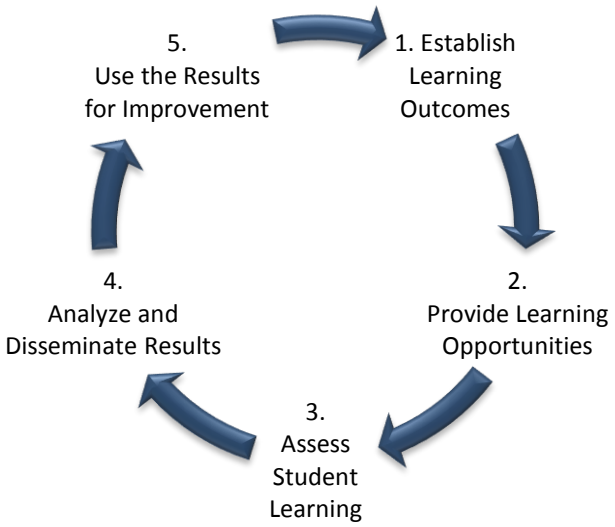
"… the process by which we ascertain through data collection if students have learned the skills, content, and habits of mind that will make them successful; if students are not learning, we decide on changes in the curriculum or teaching strategy to improve learning."

(Dwyer, 2008)

Mount Vernon Nazarene University is committed to ensuring that academic programs provide students with the best possible learning to equip them with the requisite skills and knowledge to be successful in their careers and lives. To maintain that level of quality and to work to continually improve the educational environment at all levels, we are dedicated to regularly gathering and evaluating evidence of student learning and using that information to improve program effectiveness. This evidence also demonstrates the quality of our programs and courses to future students, possible funding sources, accrediting bodies, and others.

Through a step-by-step format, this guide is designed to assist programs in creating and implementing a comprehensive program assessment plan. *Academic Quality through the Assessment of Student learning: Guidelines for Developing and Implementing an Assessment Plan* is divided into four parts, each of which is introduced briefly below.

Part I of this guide will outline the first section of the Program Assessment Plan Narrative (*Appendix A*), including the identification of programs included in the assessment plan and the program's mission. This section also includes the identification of program changes that have occurred as a result of the five-year program review for programs submitting a revision to their assessment plan.



The assessment of student learning outcomes is the process of collecting information that reveals whether the services, activities, and/or experiences offered in a program are having the desired impact on those who partake in them. In other words, is the program making a difference in the lives of the students it serves? As depicted in *Figure 1*, the assessment of student learning outcomes includes five stages. **Part II** of this guide walks through the development of a comprehensive

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assessment plan that attends to all the stages in the assessment process. All templates referenced in the section are included as appendices at the back of this guide for quick reference. The templates can also be accessed at WEBSITE

Assessment of student learning is a collaborative effort involving members of the academic department, the school dean, director of assessment, and the Student Learning and Assessment Committee. **Part III** of this guide provides a brief orientation to the accountability structures and support resources to guide programs through the process of articulating the written plan. These tools include an assessment calendar, links to internal support for assessment, and external sources that provide valuable examples of proven assessment practices.

Finally, **Part IV** includes the works consulted in developing this guide and can serve as a reference source for those interested in further information.

PART I

DEPARTMENTAL INTRODUCTION

As the starting point in the development of an assessment plan, the program(s) included in the assessment must be identified. The departmental introduction sets the stage for the plan's intended purpose and how it contributes to the University's intentional plan for continuously improving student learning. This introduction includes program(s) to be assessed, a mission statement (if applicable to the program), and changes that have occurred since the previous assessment plan review.

Following the format in the Program Assessment Plan Narrative (*Appendix A*), programs should attend to the following components:

1. The program(s) that the assessment plan will include.

   The departmental introduction includes the identification of the program(s) encompassed in the assessment plan. As some departments include multiple programs, the assessment plan should include how each program is being assessed, fully articulated in Part II, being sure to identify the student learning outcomes and assessment measures for each unique academic program.

2. Departmental Mission Statement

   A mission statement is a clear expression of the program's reason for existence that reflects its values and purpose. A mission statement should answer what, how, for whom, and why a program exists. In writing a mission statement, it is often helpful to ask a few descriptive questions to get started.

   For example:

   1. What is the purpose of the program?

   2. How does the program work to achieve this purpose? What strategies are engaged in order to achieve the purpose?

   3. Whom does the program serve? Who is the ultimate target group the program seeks to reach in achieving its mission?

   4. Why does the program exist? What results does the program hope to achieve?

   An example of a mission statement might be:

   The mission of (program) is to (primary purpose) by providing (summary of primary function) to (major stakeholders) in order to (results achieved).

   If a program develops a mission statement, it should be clearly situated and contextualized within the University mission.

   Adopting a mission statement for the program is not required, but it aids in articulating:

   - How the program aligns with the University mission.

- The primary activities of the program—defines the program, what it does, and for whom it does it.
- The purpose of the program—why those functions are performed.
- The ultimate program outcome.

3. Identify changes that have occurred as a result of the five-year program review.

   This section of the template is designed for programs that have been through the five-year program review cycle. <u>If this is the program's initial assessment plan, this section of the template should be skipped</u>.

   As part of the assessment cycle, the five-year program review most likely identified continuous improvement actions to curriculum and/or the academic process of student assessment and learning (see *Actions Taken to Improve Student Learning* in Part II of this guide).This section affords the program an opportunity to showcase how they have moved beyond focusing on assessment as an end itself to the use of assessment data in planning to develop an evidence-based program and assessment plan. Please describe what changes were made to your assessment plan as a result of your five-year review.

PART II

DEVELOPING AN ASSESSMENT PLAN

As previously noted, the assessment of student learning entails five stages:

1. Articulate Student Learning Outcomes for each Academic Program
2. Provide Learning Opportunities
3. Identify the Method by which the Outcome will be Evaluated
4. Analyze and Disseminate Results
5. Action Taken to Improve Student Learning

This section is designed to walk through a step-by-step process of attending to each of these five stages. All supporting templates are appended at the end of this guide for easy reference and use. Also, as previously noted the templates are accessible at WEBSITE.

IDENTIFY THE STUDENT LEARNING OUTCOMES FOR EACH ACADEMIC PROGRAM

The first stage of developing an assessment plan is to identify student learning outcomes (SLOs). Consistent with its mission statement, the academic program defines the specific learning outcomes it wants its students to achieve. SLOs directly describe what a student is expected to learn as a result of participating in academic activities or experiences in a program. SLOs should answer the question *"So what?" So what* that the students completed your program….

- What do students gain?
- How do they benefit?
- What difference does it make?
- What change occurred as a result?

The desired change or difference as a result of your program can occur in many realms, including:

- Knowledge gained
- Skills and abilities acquired and demonstrated
- Attitudes or values changed

If you are struggling with the identification of SLOs, one place to begin is to look to your professional organizations. Many times professional organizations adopt standards in knowledge, skills and dispositions for their field of study. If such structures exist they would likely be the concepts that drive the national standardized tests in the field and would be an excellent place to begin in developing the SLOs for your program.

You may also find value in utilizing learning taxonomies in developing your SLOs. Learning taxonomies or classifications are commonly utilized as a way of describing different levels of learning desired of students. The most common and earliest of these classifications is Bloom's *Taxonomy of Educational Objectives* (1956). Bloom identified the following levels of learning (arranged from lower-order to higher-order levels of learning):

- **Knowledge**: To know specific facts, terms, concepts, principles, or theories.
- **Comprehension**: To understand, interpret, compare and contrast, explain.
- **Application**: To apply knowledge to new situations; to solve problems.
- **Analysis**: To identify the organizational structure of something; to identify parts, relationships, and organizing principles.
- **Synthesis**: To create something, to interpret ideas into a solution, to propose an action plan, to formulate a new classification scheme.
- **Evaluation**: To judge the quality of something based on its adequacy, value, logic, or use.

For each level, Bloom identified a list of verbs for describing that level in written outcomes. The following table includes a list of sample verbs which may be useful in writing intended SLOs that are appropriate for that level of learning.

Bloom's Taxonomy of Learning (1956)					
Level of Learning	Sample Verbs to Use in Writing SLOs				
Knowledge *Lowest order of thinking*	Acquire Cite Choose Define Describe Distinguish	Group Identify Indicate Know Label List	Locate Match Name Outline Quote Recall	Recite Recognize Repeat Reproduce Select State	Tabulate Trace Underline
Comprehension	Arrange Associate Change Classify Conclude Convert Describe	Determine Diagram Differentiate Discuss Estimate Expand Explain	Extend Extrapolate Generalize Give Examples Infer Illustrate Interpret	Paraphrase Predict Prepare Put in Order Rearrange Restate Review Reword	Simplify Summarize Transform Translate
Application	Apply Calculate Compute Construct Convert Demonstrate Derive Determine Develop Differentiate	Discover Discuss Distinguish Dramatize Employ Estimate Expand Experiment Explain Generalize	Graph Illustrate Interpret Investigate Manipulate Model Modify Operate Organize Participate	Perform Plan Practice Predict Prepare Present Produce Prove Put to use Put together	Record Relate Restructure Schedule Sketch Show Solve Track Translate Use/utilize
Analysis	Analyze Appraise Break down Calculate Categorize Classify Compare Contrast Criticize	Debate Deduce Detect Determine Diagram Differentiate Discriminate Distinguish Divide	Draw Conclusions Examine Experiment Formulate Group Identify Parts Illustrate Infer	Inspect Inventory Order Outline Relate Search Separate Simplify Sort	Solve Subdivide Question Take Apart Test Transform Uncover
Synthesis	Arrange Assemble Blend Build Categorize	Create Deduce Derive Design Devise	Generate Imagine Integrate Invent Manage	Plan Predict Prepare Prescribe Propose Rearrange	Rewrite Specify Suppose Summarize Synthesize

	Combine Compile Compose Constitute Construct	Develop Document Explain Form Formulate	Make Up Modify Originate Organize Perform	Reconstruct Relate Reorganize Revise	Transmit Write
Evaluation *Highest order of thinking*	Appraise Argue Assess Award Choose Compare Conclude Consider	Contrast Critique Decide Defend Determine Discriminate Distinguish Estimate	Evaluate Explain Grade Interpret Judge Justify Measure Rank	Rate Recommend Relate Revise Score Select Standardize Summarize	Support Test Validate Verify

Krathwohl's *Taxonomy of the Affective Domain* was developed from Bloom's original taxonomy. It includes concepts such as Receiving ideas; Responding to ideas/phenomena; Valuing ideas/materials; Organization of ideas/values; Characterization by value set (or to act consistently in accordance with values). The following table briefly explains each level and provides a list of sample verbs which may be useful in writing intended SLOs that are appropriate for that level of learning.

Krathwohl's Taxonomy of the Affective Domain (1964)		
Level	Characteristic	Some Verbs
Receiving	Developing awareness of ideas and phenomena	Describe, Identify, Name, Understand
Responding	Committing to the ideas etc. by responding to them	Answer, Recite, Perform, Report, Select, Follow, Explore, Display
Valuing	Being willing to be seen as valuing certain ideas or material	Appreciate, Defend, Initiate
Organization and Conceptualization	To begin to harmonize internalized values	Arrange, Combine, Compare, Balance, Theorize
Characterization by Value	To act consistent with the internalized values	Discriminate, display, Influence, Revise, Modify

An example of a useful *Taxonomy of the Psychomotor Domain* is Dave's (1970; see also Ferris & Aziz's, 2005) adaptation of Bloom's original taxonomy. The key categories in this taxonomy captures the development in learning from initial exposure to final, unconscious mastery. While the taxonomy deals largely with motor-area skills and the mastery of them, it is also applicable to the language and the arts, such as performing on a musical instrument or the development of fluency in a language. The key stages, a brief explanation and example verbs are provided in the table below.

Dave's Taxonomy of the Psychomotor Domain (1970)		
Level	Characteristic	Some Verbs
Imitation	Observing and patterning behavior after someone else; performance may be of low quality	Assemble, Attempt, Copy, Calibrate, Construct, Duplicate, Follow, Mimic, Repeat, Replicate, Reproduce, Respond, Sketch
Manipulation	Ability to repeat or reproduce actions to prescribed standard from memory or instructions	Build, Conduct, Enact, Execute, Implement, Improve, Maintain, Perform, Recreate

Precision	Ability to perform actions with expertise and without interventions and the ability to demonstrate and explain actions to others	Achieve, Accomplish, Advance, Automatize, Complete, Demonstrate, Master, Perfect, Refine, Show
Articulation	Ability to adapt existing psychomotor skills in a non-standard way, in different contexts, using alternative tools or instruments	Adapt, Alter, Change, Construct, Combine, Coordinate, Develop, Evaluate, Formulate, Integrate, Modify, Rearrange, Reorganize, Revise, Solve
Naturalization/Embody	Ability to perform actions in an automatic, intuitive, or unconscious way appropriate to context	Define, Design, Invent, Originate, Project-Manage, Specify

Each program should strive for 5-10 SLOs. SLOs should specify both an observable action on the part of the student and object of that action. It may be useful to think of each SLO as beginning with the statement "*Students will be able to…,*" followed by an appropriate verb related to the desired action or performance (using example verbs above), and ending with the object of the statement describing the learning that students are expected to demonstrate through the action or performance. The verb that is chosen for the intended SLO statement will help to focus on exactly what is to be assessed and identify the appropriate instruments, metrics, and tools that can be used to assess the extent of the intended leaning (discussed later in this guide).

General structure of SLOs:

Business Example

Students will be able to….
Apply (verb) legal and ethical principles in business to organizational decision-making (object)

Chemistry Example

Students will be able to
Predict (verb) the outcome of a reaction, given the identities of the reactants (object)

Social Work Example

Students will be able to…
Demonstrate (verb) a positive regard for cultural and human diversity through nondiscriminatory practice (object)

Once articulated, SLOs should be entered into the Program Assessment Plan Matrix (*Appendix B*) down the left-hand column.

Student Learning Outcomes	Assessment Methodology	Summary of Major Findings	Actions Taken to Improve Student Performance
SLO 1:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 2:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 3:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
Etc.			

PROVIDE LEARNING OPPORTUNITIES

The second stage of developing an assessment plan is to provide learning opportunities. This represents the curriculum of the program. It is beneficial for programs to walk through the process of curriculum mapping when first developing an assessment plan and during the five-year review process. Curriculum mapping is a process that ensures the alignment of assessment, curriculum, and instruction making it possible to identify where within the curriculum SLOs are being addressed. In other words, it provides a means to determine whether program objectives are *aligned* with the curriculum, clarifying the relationship between what students do in their courses and what the program faculty expect them to learn. Analyzing the alignment of the curricula with program SLOs allows for the identification of gaps which can then lead to curricular changes to improve student learning opportunities.

The Curriculum Mapping Matrix (*Appendix C*) was designed to assist programs with this process. It is a two-dimensional matrix representing courses on one axis and outcomes on the other. All the courses required to earn a degree in the program (including pre-requisites) should be entered in sequential order down the left-hand column of the template.

Required Courses	SLO 1: *Outcome entered here*	SLO 2: *Outcome entered here*	SLO 3: *Outcome entered here*	Etc.

The identified SLOs are then entered across the top row of the matrix.

Required Courses	SLO 1: *Outcome entered here*	SLO 2: *Outcome entered here*	SLO 3: *Outcome entered here*	Etc.

As a unit, program faculty examine each outcome in the context of each course to determine if the course addresses the outcome in a meaningful way. There are three levels at which a course might address the knowledge, skills and/or dispositions embedded in a SLO, including introducing content, developing that content, or mastering that content. Each is introduced briefly:

- Introduce (I): Students first learn about key ideas, concepts or skills related to the outcome. This usually happens at a general or very basic level, such as learning one idea or concept related to the broader outcome. Instruction and learning activities focus on basic knowledge, skills, and/or competencies and entry-level complexity.

- Develop (D): Students gain additional information related to the outcome. They may start to synthesize key ideas or skills and are expected to demonstrate their knowledge or skills. Instructional and learning activities continue to build upon previous competencies with increased complexity.

- Master (M): Students are expected to be able to demonstrate their ability to perform the outcome with a reasonably high level of independence and sophistication.

In building the curriculum map, place an I, D, or M in the table cell for each course that meaningfully covers something related to the outcome at one of those levels.

Insert example of completed map once we have one

A completed curriculum map has multiple important uses. For example, it can be used to:

1. Review how the learning outcomes progress across the curriculum by looking down the columns.

    - Each learning outcome should be Introduced, Developed and Mastered at least once across the curriculum.

    - If every cell in the column is filled, it might suggest redundancy and unnecessary overlap; you might be over-covering that outcome in your curriculum.

    - If few cells are filled for a learning outcome, or if a particular outcome is not Introduced, Developed, and Mastered at least once across courses, it is likely that the curriculum is not covering that learning outcome as completely as perhaps it should to maximize student learning. If this is the case, faculty can discuss:
        a) where else in the curriculum these learning outcomes may be included,
        b) if the outcomes need revised to better reflect cumulative student learning, or
        c) if the curriculum could use additional courses or revisions within courses to meet these program-specific learning outcomes.

2. Review how courses relate to one another and work to achieve SLOs by looking across the rows.

    - Each course should support at least one and ideally more than one learning outcome. If few cells are filled for a particular course, it suggests the course does not seem related to any or many student learning outcomes. This provides an opportunity to discuss whether the course should be required or whether an important learning outcome has been missed.

    - Meaningfully addressing all learning outcomes in a single course is difficult, unless it is at an introductory level in a survey course. If the curriculum map shows that a course does address all student learning outcomes, it could lead to a discussion as to whether the course focus is too broad.

3. Help interpret program data on student performance. If you find students struggling with a particular outcome, faculty can use the curriculum map to inform a discussion of which course(s) might be appropriate for increasing content related to that outcome. Care should be taken to insure that a concept is covered more than once for effective learning at a high level.

4. Identify the courses in which to offer an assignment for assessment purposes. It is generally best to assess student learning in courses where you expect them to *demonstrate mastery* of an

outcome, since by this point students should have had the opportunity to develop and refine the skills and abilities related to the outcome.

Best practices suggest that as disciplines evolve and change over time, curriculum maps may also. It is a great idea to revisit the map during the five-year program review cycle, noting changes that are made or should be made. It may also be useful to provide new adjunct and full-time faculty with curriculum maps, allowing them to know what is expected in terms of content in their assigned courses.

IDENTIFY THE METHOD BY WHICH THE OUTCOME IS/WILL BE EVALUATED

Once SLOs have been mapped with the required courses of the program, the next step is to identify appropriate evaluation methods for those learning outcomes. In general, there are two ways of measuring learning outcomes:

1. Through **Direct Measures**. Direct measures include student products or performances that demonstrate that specific learning has taken place; they provide direct evidence of the increase in students' knowledge, skills, and abilities as a result of their study in the program.

2. Through **Indirect Measures**. Indirect measures, on the other hand, may *imply* that learning has taken place (e.g., student perceptions of learning) but do not specifically *demonstrate* that learning or skill; they ask students or someone else to reflect on the student learning rather than to demonstrate it, allowing us to infer the benefits to students from their years in the program.

Below are some examples of both direct and indirect measures. These are only suggestions to help the program's faculty think about the best way of measuring student learning. There may be other measures that are more appropriate to a specific program. Program faculty need to decide what measures work best to assess SLOs in their unique context.

Adapted from Maki, P. L. (2004). Assessing for learning: building a sustainable commitment across the institution. Sterling, VA: AAHE; and

Suskie, L. (2004). Assessing student learning: A common sense guide. San Francisco, CA: Anker Publishing Company, Inc.

Examples of Direct Measures*:

- Comprehensive examinations created by the program
- Capstone projects (these could include research papers, presentations, theses, dissertations, oral defenses, exhibitions, or performances)
- Portfolios of student work
- Student publications
- Presentations at real or mock conferences
- Preparation of proposals for external funding
- Case studies
- Internships, clinical experiences, practica, student teaching, or other professional/content-related opportunities engaging students in hands-on experiences in their respective fields of study (accompanied by ratings or evaluation forms from field/clinical supervisors)

- Authentic and performance-based projects or experiences (i.e., performance recitals, gallery shows) engaging students in opportunities to demonstrate their knowledge (accompanied by ratings, scoring rubrics or performance checklists from project/experience coordinator or supervisor)
- ETS Major Field Tests**
- Scores on licensure or certification exams

* *To be effective, the evaluation of many of these direct measures should occur using a standardized rubric. Rubrics have two separate, but valued functions: [1] communicate to the student what is important in the assignment, and [2] frame the evaluation task of faculty.*

** *The ETS Major Field Test is a nationally normed exam available in a variety of disciplines. They often are given to students prior to starting the program and upon or near completion of their major field of study. These tests assess the ability of students to analyze and solve problems, understand relationships, and interpret material. Major field exams are published by Educational Testing Services, Princeton, New Jersey.*

Most of these direct measures can be embedded in courses. Assessment practices embedded in academic courses generate information about what and how students are learning within the program and classroom environment and take advantage of already existing curricular offerings and instructors evaluating assignments. Programs are encouraged to consider incorporating program-embedded assessment strategies into their assessment plan. One way to identify the most appropriate places to embed assessment measures in courses is to review the curriculum map to see where students are expected to demonstrate mastery. A carefully constructed assignment with grading rubric can serve as a course requirement, as well as a program assessment measure. There are a number of advantages to this approach, including:

1. It is part of a course requirement so students have a tendency to respond more seriously to this method making it a more valid measure.
2. It does not require additional time for data collection, since instruments used to produce student learning information can be derived from course assignments already planned as part of the requirements.
3. The presentation of feedback to faculty and students can occur very quickly creating a conducive environment for ongoing programmatic improvement.

Examples of Indirect Measures:

- Surveys, questionnaires, open-ended self-reports, focus-group or individual interviews dealing with *current students'* perception of their own learning
- Surveys, questionnaires, focus-group or individual interviews dealing with *alumni's* perception of their own learning or of their current career satisfaction (which relies on their effectiveness in the workplace, influenced by the knowledge, skills, and/or dispositions developed in school)

- The employment and enrollment survey (see Appendix XXX) is sent to recent graduates six months after graduation to gain knowledge and satisfaction of current employment and advanced educational status
- Surveys, questionnaires, focus-group or individual interviews dealing with the *faculty and staff members*' perception of student learning as supported by the programs and services provided to students
- Honors, awards, scholarships, and other forms of public recognition earned by students and alumni
- Career placement rates after graduation
- Admission rates to graduate or professional programs and quality of the institutions to which the students are admitted

As highlighted throughout the lists of direct and indirect measures, SLOs can be measured by gathering either quantitative or qualitative evidence. **Quantitative** evidence of student learning is represented numerically (e.g., a test score or % of students passing a comprehensive exam on the first attempt) and make comparisons and general statements about performance easy. **Qualitative** evidence of student learning, on the other hand, includes narratives or other non-numerical information (e.g., student responses to open-ended survey items or information gathered via focus groups). Qualitative measures are more challenging to summarize and make comparisons a bit difficult but can provide a wealth of useful information.

For a holistic view of student learning and achievement it is important to employ both direct and indirect measures and gather both quantitative and qualitative evidence. Multiple methods strengthen the *reliability* (repeatability) and the *validity* of the data (accuracy).

To assure that students are measured at different progress points and skill mastery, formative and summative measures are useful. The goal of **formative assessment** is to *monitor student learning* to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. This type of assessment happens regularly throughout course instruction. The goal of **summative assessment** is to *evaluate student learning* at the end of an instructional unit. It provides faculty and students with an end of course or program content knowledge benchmark to determine student's mastery.

Examples of Formative Assessment Measures:

- Ungraded assignment
- Observation/lab report/clinical
- Quizzes/essays
- Portfolio assignment
- Reflection paper

Examples of Summative Assessment Measures:

- Final exam
- Course grade
- SAT/ACT score
- Capstone project

- Senior recital
- Service learning project
- Employment and enrollment survey

Once identified/developed, assessment methods should be entered in the next column of the Program Assessment Plan Matrix (*Appendix B*). Please note programs should identify at least two measures for each SLO.

Student Learning Outcomes	Specific Assessment Methodology	Summary of Major Findings	Actions Taken to Improve Student Performance
SLO 1:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 2:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 3:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
Etc.			

Analyze and Disseminate Results

Once data have been aggregated (changing the level of analysis from individual students to the current cohort, and ultimately to departmental performance), major findings should be entered in the next column of the Program Assessment Plan Matrix (*Appendix B*).

Student Learning Outcomes	Specific Assessment Methodology	Summary of Major Findings	Actions Taken to Improve Student Performance
SLO 1:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 2:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 3:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
Etc.			

The purpose of collecting data is to come together as a faculty to discuss the findings and how they can be used to celebrate student performance and improve student learning. It is a dynamic process that involves shared feedback and collaborative reflection on the part of the faculty and other stakeholders in the program. This begins first with making faculty aware of assessment findings and then organizing discussions around how to make improvements. Doing so can be one of the most worthwhile and energizing parts of the assessment process, as data is turned into valuable information and then into action through conversation among colleagues.

Some possible topics for this meeting include:

- Discuss assessment results as they relate to each SLO
- Review assessment results to determine programmatic strengths and areas for improvement
- Decide if different assessment methods are needed in order to obtain more targeted information
- Begin to determine how assessment results can be used to make improvements to the program (e.g., changes to the curriculum, provide professional development for teaching personnel in certain areas, etc.).

It is also important to build into the assessment plan when and how assessment results will be shared with students. The plan should consider how students will be informed of both their individual scores (when appropriate), as well as how they performed as a cohort.

In the assessment plan, please articulate how and when assessment results will be shared with various stakeholders in the MVNU community and public at large.

ACTIONS TAKEN TO IMPROVE STUDENT LEARNING

"Assessment per se guarantees nothing by way of improvement
no more than a thermometer cures a fever."

(Marchese,1987)

Using assessment results to take action or closing the loop is the last phase in the assessment cycle and involves making decisions about how to celebrate successes and respond to shortcomings that have been identified through assessment data.

Acting on Assessment-Related Data

Adapted from Suskie, L. (2004). Assessing student learning: A common sense guide. San Francisco: Jossey-Bass.

If the program is satisfied with student performance on learning outcomes:

- Celebrate!
  - Congratulate each other and the students
  - Share exemplars of strong assignments with students as models

- Get the word out
  - Put results on the program website or in the newsletter
  - Send an email with the results to all students in the program
  - Email the dean, department chair or others
  - Prepare a brief presentation for your advisory board or community partners
  - Put the findings in admissions and recruitment materials

If the program is not satisfied with student performance, ask some key questions to determine the nature and extent of the problem:

- Is there corroborating evidence that the students are struggling with the related skills or content elsewhere or was it just on this measurement?

- How many students are struggling? Is it 1 or 2 out of 30, or 20 out of 30?

- How critical is the outcome which students are struggling? Is it fundamental to their practice or is it important but not critical that they be proficient?

If it is determined that the results merit immediate action rather than just monitoring performance over time, changes may occur to the following:

- Changes to Assessment Plan
  - Are there too many outcomes? Can a student realistically accomplish all these? Are they all of equal importance? Consult advisory board about the relevance of the outcome(s) that is posing a problem. Are all outcomes core to professional practice?
  - Are expectations for performance too high? Do any of the SLOs need to be revised?
  - Is the measurement method valid and clearly capturing the intended outcome?
  - How frequently should learning be assessed and for what reason? From a formative assessment perspective, how does learning progress from the introduction of content, through the development of content, to mastery where students are expected to be able to demonstrate their ability to perform the outcome (summative assessment) with a reasonably high level of independence and sophistication.
  - Are different assessment methods needed in order to obtain more targeted information?

- Changes to Curriculum
  - Review the curriculum map and all courses where the skill or content is taught to see if it is being covered in sufficient depth and if the curriculum is in full alignment. Consider expanding coverage in the current courses or adding the skill/content to additional courses.
  - Consider the revision of prerequisites or course sequence, as well as adding or deleting courses
  - Explore ways to supplement learning outside of coursework – such as through optional study groups, practica, or workshops.

- Changes to Pedagogy
  - Are students getting detailed and timely feedback related to their performance throughout the program?
  - Does more time and attention need to be paid to the content or skill in particular courses?
  - Are the current teaching strategies used by instructors optimal? Should there be more active learning? More demonstration? More explicit lecture?

- Changes to the Academic Process
  - Consider revision of admission criteria
  - Review and possibly revise advising standards or processes
  - Build capacity in faculty and staff
  - Changes in frequency or scheduling of course offering

Once identified, actions taken to improve student performance should be entered into the final column of the Program Assessment Plan Matrix (*Appendix ?*). This aspect is important for institutional value commitments for continuous improvement, as well as for transparency and accountability purposes for external stakeholders.

Student Learning Outcomes	Specific Assessment Methodology	Summary of Major Findings	Actions Taken to Improve Student Performance
SLO 1:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 2:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 3:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
Etc.			

PART III

RESOURCES AND ACCOUNTABILITY

This section is in progress.

PART IV

REFERENCES

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Program: Click here to enter text.

What type of plan is this: Initial Assessment Plan ☐ Revised Assessment Plan ☐

Primary Contact Person: Click here to enter text.

Persons Contributing to the Plan: Click here to enter text.

Departmental Introduction

1. Please identify the program(s) the assessment plan will include.
   Click here to enter text.

   Does the department have a mission statement? ☐ Yes ☐ No

   If so, what is it?
   Click here to enter text.

2. *If an initial plan, skip to next section*. Otherwise, identify changes that have occurred as a result of the five-year program review. For example, has there been a change in allocated resources or has the department chosen a different deployment plan than the previous assessment plan review. Explain.
   Click here to enter text.

Assessment Plan

Please complete the Program Assessment Plan Matrix and provide brief narrative below.

1. List the Student Learning Outcomes for each academic program here and enter them into the first column of the Program Assessment Plan Matrix.
   Click here to enter text.

2. Provide the completed Curriculum Mapping Matrix that demonstrates where within the curriculum Student Learning Outcomes are being addressed. In summary below, share a brief description of the mapping process for your program.

   Curriculum Mapping Matrix attached? ☐ Yes ☐ No

3. Please identify the methods by which Student Learning Outcomes are/will be evaluated and enter them into the second column of the Program Assessment Plan Matrix. In summary below, please identify when you will measure the outcome and if the measurement point will be used for formative or summative assessment purposes.
   Click here to enter text.

4. *If this an initial assessment plan*, please describe how and when assessment results will be shared with various stakeholders in the MVNU community and public at larger. *If this is a revised plan*, please aggregate assessment data and discuss students' success in meeting each goal, as well as how and when assessment results were shared with various stakeholders in the MVNU community and public at larger. Also enter a brief summary of the findings in the fourth column of the Program Assessment Plan Matrix.
   Click here to enter text.

5. *If an initial plan, skip to next section*. Otherwise, please discuss how you have used assessment data to improve student performance. What actions have you taken? Also enter a summary statement in the final column of the Program Assessment Plan Matrix.
   Click here to enter text.

Program Unit or Department:
Assessment Cycle:
Date Submitted:

Contact Person:
Phone Contact:
Email Contact:

Student Learning Outcomes	Specific Assessment Methodology	Summary of Major Findings	Actions Taken to Improve Student Learning
SLO 1:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 2:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 3:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 4:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 5:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 6:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 7:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 8:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 9:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 10:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 11:	Method 1:	Findings Method 1:	
	Method 2:	Findings Method 2:	
	Etc.	Etc.	
SLO 12:	Method 1:	Findings Method 1:	

Program Unit or Department:
Assessment Cycle:
Date Submitted:

Contact Person:
Phone Contact:
Email Contact:

Required Courses	SLO 1: *Outcome entered here*	SLO 2: *Outcome entered here*	SLO 3: *Outcome entered here*	SLO 4: *Outcome entered here*	SLO 5: *Outcome entered here*	SLO 6: *Outcome entered here*	SLO 7: *Outcome entered here*	SLO 8: *Outcome entered here*	SLO 9: *Outcome entered here*	SLO 10: *Outcome entered here*	SLO 11: *Outcome entered here*

As a unit, program faculty examine each outcome in the context of each course to determine if the course addresses the outcome in a meaningful way. There are three levels at which a course might address the knowledge, skills and/or dispositions embedded in a SLO, including:

- Introduce (I): Students first learn about key ideas, concepts or skills related to the outcome. This usually happens at a general or very basic level, such as learning one idea or concept related to the broader outcome. Instruction and learning activities focus on basic knowledge, skills, and/or competencies and entry-level complexity.
- Develop (D): Students gain additional information related to the outcome. They may start to synthesize key ideas or skills and are expected to demonstrate their knowledge or skills. Instructional and learning activities continue to build upon previous competencies with increased complexity.
- Master (M): Students are expected to be able to demonstrate their ability to perform the outcome with a reasonably high level of independence and sophistication.

In building the curriculum map, place an I, D, or M in the table cell for each course that meaningfully covers something related to the outcome at one of those levels.