2026-27

PROGRAM ASSESSMENT HANDBOOK

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Key Dates

JUL 31
Assessment plans due to UOEEE for new programs seeking establishment

SEPT 30
Annual assessment reports due to delegate

DEC 2
Annual assessment plan reviews due to delegate

Arizona State University

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ASU's Philosophy and Approach to Program Assessment

The purpose of assessment in higher education is to provide evidence that will inform and support improvement in student learning and student success. Assessment of student learning is a planned process that collects data to be analyzed and discussed and when needed, support change. Assessment data is meant to improve knowledge and insight for all stakeholders including faculty and administrators. Collecting valid and reliable student learning data allows for informed planning and decision making around curriculum and pedagogy.

Institutions are expected to assess all educational programs offered for academic credit (i.e., courses taken for degree and certificate programs) as well as curriculum complementing activities such as study abroad, service learning, career services, and student-faculty research experiences. Assessment at ASU is not used for the evaluation of program performance or to evaluate individual faculty performance. Multimodal assessment methodologies collect data on student learning and related indirect data on students' perspective, attitudes, and dispositions. With assessment, faculty have the ability to analyze data and draw conclusions that inform continuous improvement of curriculum and pedagogy.

Assessment guidelines and practices at Arizona State University (ASU) are influenced by national organizations such as American Association of Colleges and Universities (AAC&U), Association for the Assessment of Learning in Higher Education (AALHE), and National Institute for Learning Outcomes and Assessment (NILOA) as well as ASU's regional accreditor, The Higher Learning Commission (HLC). These entities expect a robust assessment infrastructure that identifies both strengths and weaknesses of student learning to ensure ASU delivers high quality programs where students successfully meet the established program learning outcomes and general education outcomes.

In addition to these guidelines, assessment at ASU is also guided by ASU's Charter. This charter serves as the university's mission statement and guides all college, department, and program level mission statements and goals. It reads:

> *ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural, and overall health of the communities it serves.*

University Office of Evaluation and Educational Effectiveness

The assessment department within University Office of Evaluation and Educational Effectiveness' (UOEEE), is tasked with supporting academic programs in their development of methodologies to produce valuable and meaningful data for continuous improvement at ASU.

UOEEE's assessment goals include:

1. Advance a culture of data-based decision making and continuous improvement.
2. Create a culture of assessment that is transparent and informs the ASU community (including stakeholders) about student learning.
3. Develop and implement a process that results in continuous improvement of student learning. The process should be both systemic and systematic.

4. Support the community in using assessment practices that result in valid, reliable, and meaningful assessment.

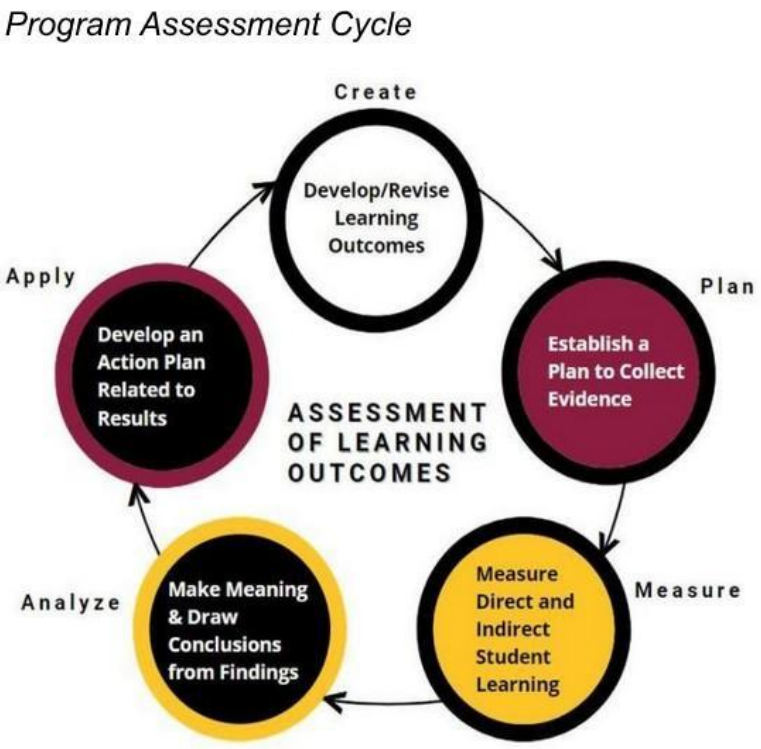
In addition to the UOEEE assessment team, each academic college is supported by one or more assessment delegates. Assessment delegates serve as the primary liaison between the UOEEE team and the faculty/staff within their academic unit for all assessment related activities.

Cycle of Assessment

The purpose of academic assessment efforts is to continually increase the quality of education provided to students at ASU through a cycle of assessment and evaluation (see Figure 1). This is accomplished in several ways such as supporting programs in the development of academic assessment plans (e.g., program learning outcomes), annual reporting, new program proposals, the assessment of general education, and academic program review (APR). UOEEE also provides the resources for these assessment activities through its website, Canvas site, and assessment portal. The assessment portal is a particularly dynamic tool that provides a single place for faculty to input their assessment plan and reports, submit new program applications, and receive input and approval from UOEEE. Even more importantly, it also serves as a repository for historical data that can be utilized for longitudinal analysis.

UOEEE staff also consult with and provide support to ASU's co-curricular areas (EOSS) when requested. The assessment staff provide resources and support for assessment through the assessment portal, assessment reports, workshops, technology, special projects, resources, and research.

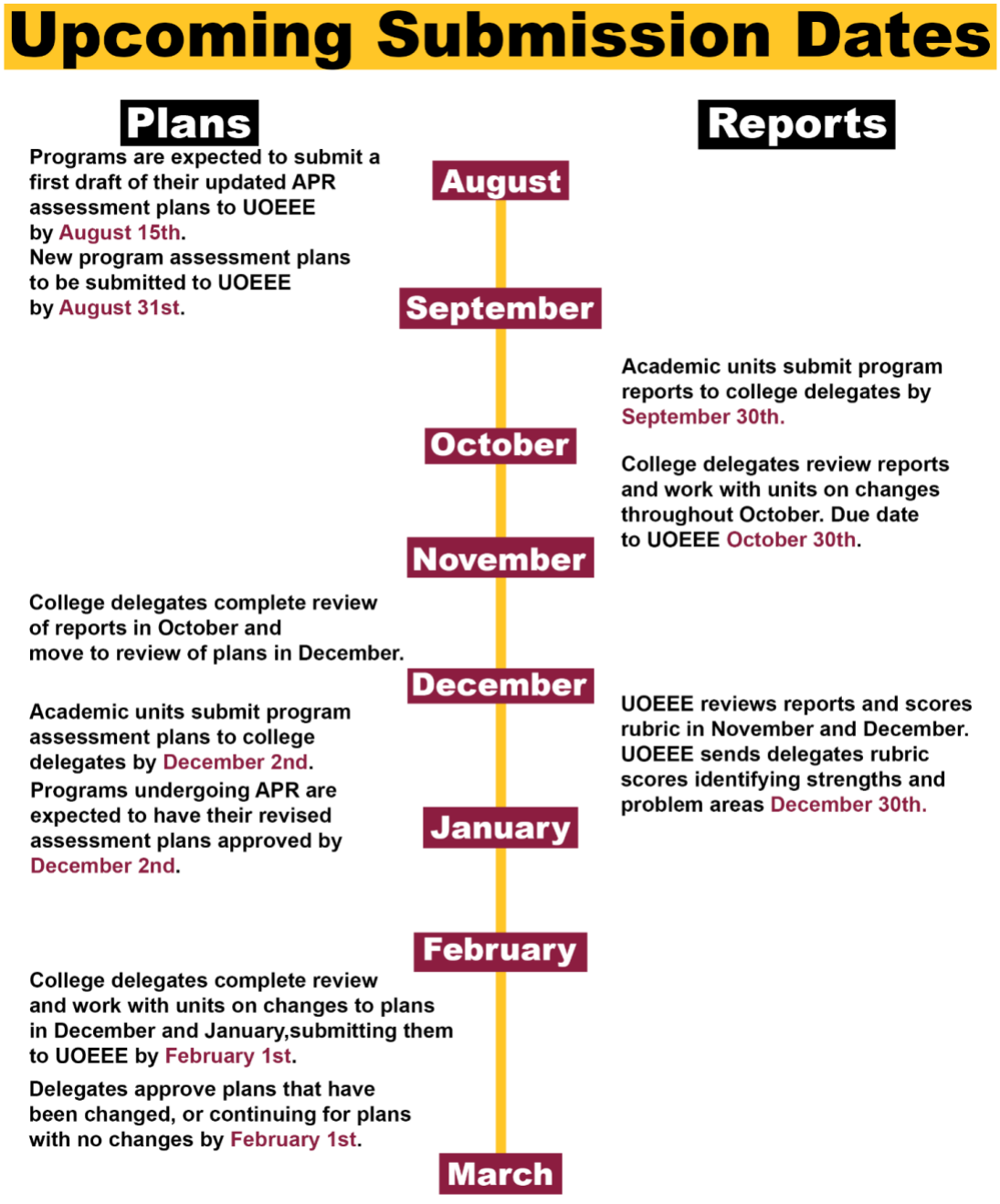
Figure 1: Program Assessment Cycle Diagram



Key Processes and Due Dates

**Please note that the academic school year runs from August to July*

Figure 2: Submission Dates



Program Assessment at ASU

All credit-bearing programs, degrees, and certificates are required by the Higher Learning Commission to participate in institutional evaluation (assessment, program review). UOEEE does not currently require minors to be assessed. Programs are expected to report data on both immersion and online students (as determined by their registered campus). Programs with ≥ 20 online students, will be expected to disaggregate data for immersion and online populations in their annual assessment reports. A student is considered an "online student" when their registered campus is "Online" (as opposed to Tempe, Poly, etc.).

Academic program assessment at ASU follows a process that is structured, ongoing, and designed to measure the extent to which graduates leave the institution with the knowledge and skills expected of its majors. The program assessment process (see Figure 1) begins with programs developing an assessment plan proposal as part of their new program proposal materials sent to ABOR. Upon establishment, programs will maintain their assessment plan along with submitting an annual assessment report with student learning data based upon the assessment plan. This cycle of development, assessment, review, and update, informs subsequent decisions and activities and continues until a program's disestablishment. An assessment methodology should be designed in such a way as to provide insight on the breadth and depth of the curriculum.

Figure 3: Assessment Plan Life Cycle

******The reporting year runs from June - May annually*

Develop New Assessment Plan
• **create assessment plan for a new program**
Implement Assessment Plan
• **occurs once the program is launched** • **data collection is based on measures identified in assessment plan**
Annual Assessment Plan Review
• **review of assessment plan to ensure the assessment plan can be implemented for the next reporting year***
Annual Report
• **reports on data collected from the previous reporting year* and reflects on findings**
Academic Program Review (APR)
• **occurs every seven years** • **comprehensive review and revision of assessment plan in preparation for data collection for the next seven years**

Program Assessment Plans

Assessment plans serve as the foundation for evaluation of student learning at ASU, they outline student learning outcomes to be assessed during a term, identify specific artifacts and performance criteria to track student learning, provide a brief description of the data collection and analysis processes, and identify the individuals responsible for these tasks. Programs conduct a comprehensive re-evaluation of their assessment plan every seven years at the time of their Academic Program Review (APR). Programs can coordinate with their assessment delegate to review their assessment plans and make adjustments annually to ensure that they are accurate and meet the needs of the program. This annual revaluation does not require UOEEE reapproval.

UOEEE provides various resources to help you with your assessment plan and reports. These can be found in this handbook, on the UOEEE website and on our Canvas resource page.

New Program Application Approval Process

The university process for establishing new programs includes both internal approval through the provost office and external approval from ABOR. New program proposals seeking establishment at ASU will need approval from three administrative bodies in the following order:

- The Office of the University Provost at ASU
- Arizona Board of Regents (ABOR)
- ASU Governance Councils

The process begins when the office of the provost notifies an academic unit that they can seek approval on a new program. The unit must submit a comprehensive proposal to gain approval including an assessment plan for the new program. UOEEE works with the academic unit to develop the assessment plan component and provides *provisional approval* for the program to move forward. Assessment plans for new programs are submitted through the "New Program Application" function of the UOEEE Assessment Portal.

The provisional assessment plan required for ABOR review is submitted in an abbreviated format and does not include all the common ASU assessment elements. The provisional assessment plan must include program learning outcomes, concepts and competencies, measures, and a measures/assessment process summary**.** The summary includes:

- Student Artifacts: The estimated student artifacts or assignments used for data collection and the proposed courses where the assignments will be completed.
- Tool or Instrument: The type of tool or instruments being used (e.g., a rubric, survey, exam).
- Process: The steps describing how the academic unit intends to conduct annual assessment procedures.
- Continuous Improvement: A statement that explains the data will be used for continuous improvement.

The measures/assessment process summary is intended to be an estimate of the proposed courses and artifacts that the program is planning to utilize for assessment. Final course

numbers or subjects are not required as these may not be available at the time the provisional assessment plan is created. Performance criteria and rubric dimensions or scales are also not required at this time. All provisional assessment plans are submitted in the portal for review and UOEEE approval is required for the program to move forward.

NOTE: *If a program requires a culminating experience (thesis, dissertation, applied project etc.) one of the program learning outcomes must be related to the culminating experience. The program's proposed required core courses must also be represented in the measures. For example, student artifacts from the proposed core and/or culminating experience should be used as the anticipated measures that will capture the program population, although they may be referred to as course areas or general proposed titles. (Ex. "the statistics core course" or "Statistics for Research Administrators course")*

Programs need to submit their abbreviated assessment plans to UOEEE by **July 31st** in order to be finalized before the **August deadline** required for ABOR to review within that calendar year. Certificates, microcertificates and concentrations of a parent program do not go to ABOR for approval but are still required to have a full assessment plan (as part of their proposal materials) approved by UOEEE before Governance Council submission.

Approval of the provisional assessment plan signifies readiness to go to ABOR but the assessment plan is not entirely complete for full UOEEE approval.

After ABOR approval, programs must complete the full assessment plan and resubmit to UOEEE for final approval. This final approval ensures all changes that occurred during the ABOR approval process are included in the assessment plan and current curriculum is reflected. Additional information for new programs can be found in Canvas.

Figure 4: Program Approval Steps

NOTE: *Certificates, microcertificates and concentrations of parent programs do not require ABOR approval,however the HLC requires all credit-bearing programs, degrees, and certificates to follow assessment practices and requirements. UOEEE does not currently assess minors.*

Annual Program Assessment Plan Reviews

Assessment plans go through a formal review and revision every seven years at the time the program is undergoing academic program review (APR). However, they are also reviewed annually to ensure the plan can be implemented in the next reporting year. For smaller revisions and minor changes programs can submit changes to *their delegates* at any time during the cycle. Once the annual program assessment plan review is complete, the results can be submitted in one of two ways:

- Programs not making any changes to their assessment plan from the previous year, are expected to mark their assessment plan as "continuing" by December 2nd. No further review or action is required for these assessment plans (this option is not available for programs going through APR).

- Programs making additions or changes to their assessment plan will need to submit these changes to their delegates for approval. UOEEE recommends allowing enough time for the delegate to review the edits, request revisions (if necessary), and receive approval by December 2nd.

To guide the submission of assessment plans, UOEEE has developed a rubric to help programs understand what information should be included in each element of a program's assessment plan. When revising assessment plans during APR the rubric can be found in the portal alongside the assessment plan. UOEEE will score the rubric as a guide to help you develop your assessment plan. The rubric should be used as a guide, formative feedback, not a score. When each element of the assessment plan meets expectations it is considered acceptable for submission at ASU.

The assessment plan rubric can be found in Appendix A.

Annual Assessment Report Process

Assessment plans explain how data will be collected annually. UOEEE recommends that programs collect assessment data throughout the academic year and then begin analysis and writing their assessment reports at the end of spring semester through to the beginning of the following fall semester. **Assessment reports are due to college assessment delegates on September 30th with final submission to UOEEE by October 30th.** This timeline allows for data interpretation, analysis, and conclusions to be developed close to the time of data collection and completed before fall teaching duties begin. Reports on assessment findings occur each year for seven years in preparation for academic program reviews (APR). During APR, programs reflect on the past results and write an essay in the self study.

Annual assessment reports must meet specific criteria and serve as records of the assessment plans in practice. In addition to student learning, annual reports record faculty and staff involvement in the overall assessment process, changes in data collection that deviate from the program's original assessment plan, as well as programmatic takeaways following thorough analysis of the data. These reports are particularly important as they are the primary means of data collection used for evaluation and assessment of program effectiveness. **To ensure consistent reporting and to avoid gaps in data, programs are expected to submit a report annually, even if no data was collected.** These reports should contain an explanation for the lack of data as well as steps taken by the program to mitigate instances going forward.

Given that assessment report data is archived for programs to retrieve and use during program review, it is important for programs to try to accurately report data for the purposes of longitudinal evaluation of their students' success. Reporting on assessment activities

should also be viewed as an opportunity for program faculty to reflect on their level of participation and whether assessment findings are providing information detailed enough for faculty to provide continuous improvement guidance.

Please remember that UOEEE does not reward nor penalize programs based on whether or not their outcomes were met within any given year. Outcomes that are not met are viewed as important data points and opportunities for improvement. Instead, UOEEE examines the process and approach taken to ensure that assessment plans provide information with the ability to inform faculty and administrators. Assessment plans are considered effective if they can provide valuable information for making continuous instructional improvements. When UOEEE reviews annual reports each year, it focuses on four primary areas that often result in high quality data:

1. measures and data,
2. rigor of performance criteria,
3. faculty involvement, and
4. changes based on assessment findings (closing the loop).

The UOEEE evaluation rubric for annual reports is set out in Appendix B. Annual assessment reports consist of three primary sections: the assessment changes, participation and reflection, and the outcomes reporting.

Academic Program Review

Academic Program Review (APR) occurs on a seven-year cycle (programs can check when their college or department is scheduled for APR on the University Program Review and Accreditation (UPRA) APR page. The University Program Review and Accreditation (UPRA) office oversees APR and has a web page with timelines, guides, and other important information. During a program's APR process, programs have the opportunity to examine how effectively their program is meeting its mission, goals, and outcomes. Programs are also expected to use this opportunity to evaluate and revise their assessment plan and ensure it meets the most up-to-date requirements from ABOR.

UOEEE is involved with two aspects: a. submission of a reflective essay on the last seven years of annual assessment report data (part of the APR process) and b. submission and approval of a revised assessment plan (occurs in tandem with the APR process).

1a. Reflective Essay

As part of the APR process programs will conduct an assessment of program learning outcomes. Units will write a reflection of their past seven years of assessment reports as part of the APR self-study. To help guide data interpretations, programs are asked to respond to the four prompts provided below for each of the program learning outcomes. These questions should help units establish how well students are achieving the established learning outcomes when discussing the results of quantitative and qualitative assessment data over the last APR cycle.

This analysis is essential to the assessment and self-study process and units are encouraged to include how assessment results are shared with program faculty and students.

1. Are your students achieving at the levels of performance you had expected?
2. How well did they meet your performance criteria?
3. What plans do you have in place for students who are not achieving the desired level of performance?
4. What actions have you taken, or will you take based on your assessment data?

To help programs reflect on past data, UOEEE has developed a tool that will aggregate the data from past reports into one convenient table. Programs can also review completed past reports with UOEEE feedback. Both of these are available via UOEEE's assessment portal by going to the program archives (for instructions see Program Archives in Canvas).

b. Approval of a Revised Assessment Plan

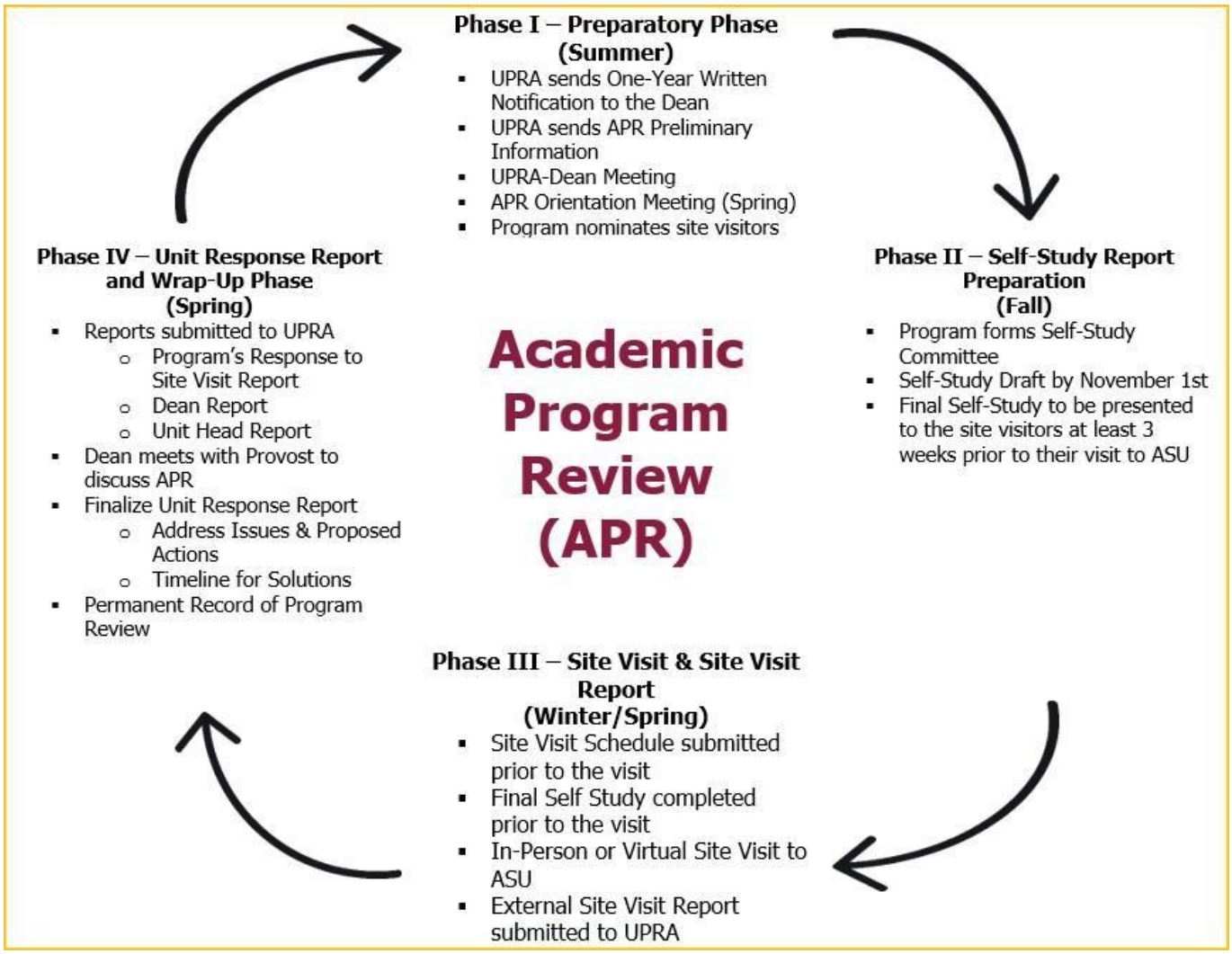
Programs in APR receive assessment plan approval from the UOEEE assessment team (through the assessment portal). **Approval does not come from assessment delegates.** To prepare the assessment plan for approval programs will need to:

1. Ensure the assessment plan incorporates the most up-to-date assessment standards and requirements put forth by UOEEE and required by ABOR.
2. Review the assessment plan and make revisions in preparation for data collection for the next seven year cycle. Changes may be made based on insight that arises from the previously collected longitudinal data, staffing changes, and/or curricular changes. Programs may wish to change their learning outcomes and identify new ones for the next assessment cycle.
3. Submit a first draft of the updated assessment plan by August 15th.

The UOEEE assessment team is available to meet with programs throughout the revision process to support them with updating their assessment plan.

For programs preparing to go through APR, a short video has been prepared to explain how to update an assessment plan and also how to respond to the prompts in the APR Manual.

Figure 5: Academic Plan Review (APR) Cycle



Elements of a Program Assessment Plan at ASU

Programs are expected to follow the most up-to-date assessment plan requirements at the time of submission. Each assessment delegate works with UOEEE to ensure assessment plans are consistently evaluated and revised as needed. As new plan elements are added, established programs will be encouraged, but not required, to add them to their assessment plan until their APR cycle. At that time, they must revise their assessment plan to include all current requirements.

The current list of requirement elements for assessment plans is as follows:

- Mission Statement
- Goals
- Program Learning Outcomes
- Concepts
- Competencies
- Curriculum Map
- Measures
- Performance Criteria
- Assessment Process

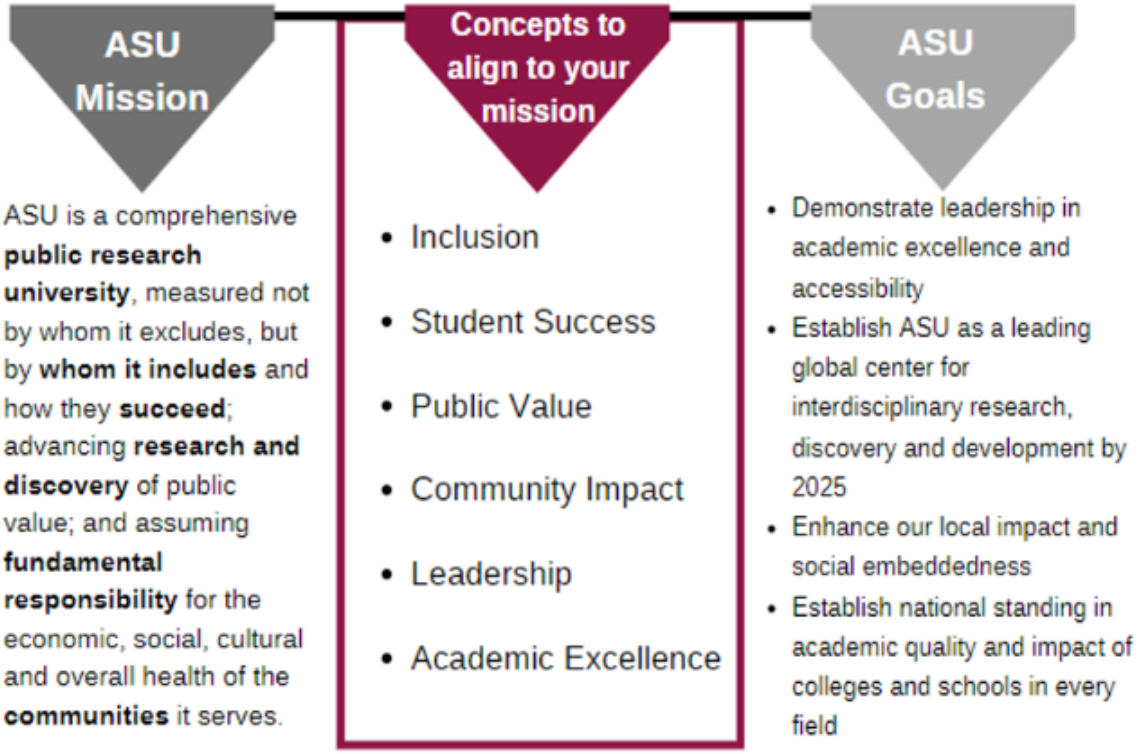
A summary of the examples of each element is set out in Appendix C.

Mission Statement

The program's mission statement is intended to provide a reference point for other elements of a program's assessment plan including its goals and program learning outcomes. It should contain three components: the purpose and value of the program, how it serves students, and how it supports the university mission. When taken together, the statement also serves as a reference point for program goals and should show a conceptual tie between the goals and PLOs.

When writing a program mission statement, programs should also develop some point of alignment with the university mission statement and goals (see Figure 6). The university mission, or charter, explains the purpose, values, and intentions of the institution. It serves as the foundation upon which its educational programs are based. Accreditors will evaluate how well an institution executes its mission through its academic programs and other endeavors.

Figure 6: ASU Mission and Goals



Guiding questions for program mission statement development:

1. Does it explain the **purpose and values** of the program?
2. How does the program **serve students** specific to the discipline?
3. Is there a relationship between the **university mission** and the program mission statement?
4. Do the **program goals and the program learning outcomes** directly relate to the mission statement?

Example Mission Statement with Breakdown of Components

The ASU School of Community Resources and Development advances the social, economic, environmental and cultural well-being of our local and global communities through instruction, research and service. We provide nationally recognized interdisciplinary research expertise and innovative academic programs in nonprofit leadership and management, parks and recreation management and tourism development management.

For more information on developing program mission statements see the section on mission statements in the UOEEE Assessment Resources in Canvas.

Program Goals

Program goals are broad statements that explain what the program expects of all their students. They extend and operationalize the mission statement. Program goals explain the expectations of the curriculum and define what makes the program unique. They also identify programmatic alignment with the university mission. Program goals should be able to describe what skills and knowledge the program expects all students to achieve. The number of program goals is often between three and six per program.

Examples of Program Goals

- The goal of ASU Program X is to teach students how to build community.
- ASU Program X provides students with a high quality and creative experience at the undergraduate, graduate, professional and postgraduate levels.
- Students enrolled in ASU Program X will generate new knowledge through a broad array of scholarly, research and creative endeavors.
- ASU program X provides students with a foundation for dealing with the immediate and long-range needs of society.
- ASU Program X teaches students cultural understanding through study of social, political, economic, and technological change.
- ASU Program X prepares students for professional licensure in [xxx] field.

If a program is designed to lead to a professional certification or carries a specialized accreditation, this information should be included in the program goals.

For more information on developing program goals see the section on program goals in the UOEEE Assessment Resources in Canvas.

Program Learning Outcomes

Program learning outcomes (PLOs) identify what a student will learn or be able to do upon completion of the program. PLOs are written in measurable terms and are focused on student learning. Each PLO has its own set of concepts and competencies. PLOs typically are measured using direct course-based artifacts (e.g. student assignments) and tools (e.g., faculty developed rubrics).

Programs are encouraged to develop as many program learning outcomes as necessary to reflect the curriculum, create accurate program findings and support a faculty-driven culture of continuous improvement. UOEEE requires programs to choose at least three outcomes to assess through the assessment plan each year. For reference, most programs tend to have between four and six PLOs. Certificates can similarly have as many outcomes as necessary to create accurate program findings but are required to assess a minimum of two outcomes each year. Keep in mind, each program learning outcome is required to have at least two related measures (covered in a later section). For degree programs, this minimally produces just six data points (three outcomes with two measures each) from which to assess often complex degree programs and four data points for certificate programs.

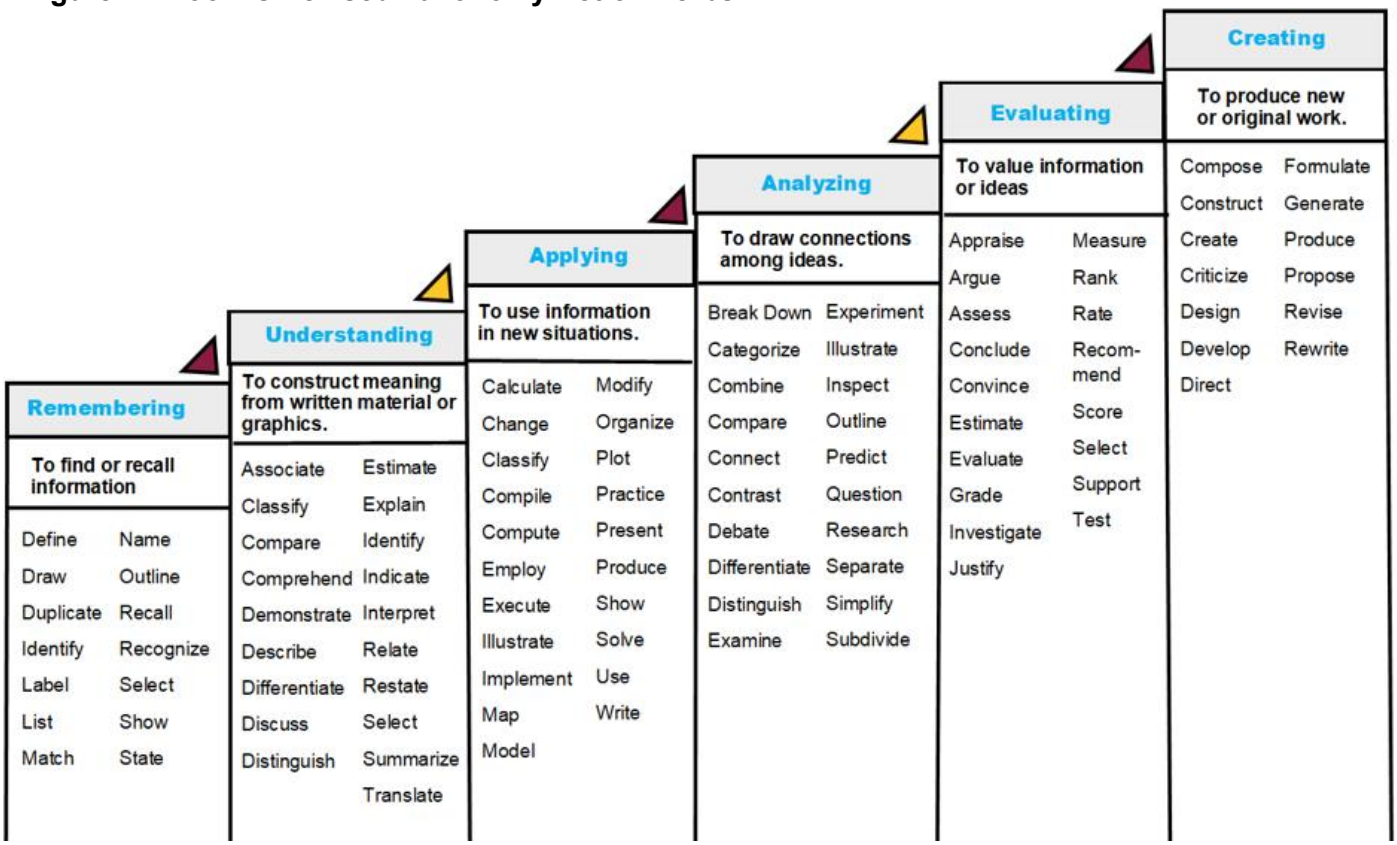
Considerations When Developing Program Learning Outcomes

It is important to remember that outcomes should be measurable indicators of a student's progress towards achieving the program's stated goals and related mission and the assessment plan should demonstrate alignment across the elements. For example, if a program's goals relate to training graduates to have a positive impact in one's community, the program's assessment plan would best be served with the inclusion of an outcome addressing skills or knowledge related to community development.

NOTE: *Each program goal does not need to be reflected in the learning outcomes, but external evaluators should be able to perceive overall alignment between the three elements (i.e., mission, goal, and outcomes) without much difficulty.*

It is also vital to measure the correct level of student learning in the student learning outcome. Outcomes should be rigorous and reflect the highest level of learning expected for degree attainment. For examples and suggestions on appropriate wording for each level of student learning, please reference Bloom's Taxonomy of Action Verbs (Figure 7). A good rule of thumb is that PLOs for lower-level undergraduate courses should be at the Bloom Taxonomy level of "remembering" and "understanding," outcomes associated with upper level undergraduate courses should be at the level of "applying" and "analyzing," and graduate level students should be at the level of "evaluating" and "creating." Most undergraduate programs will utilize verbs at the "applying" and "analyzing" levels for their outcomes as programs often focus on students' knowledge at the completion of their undergraduate degree. Keep the outcome specific; don't try to include too much in one outcome as broad outcomes are difficult to measure with any accuracy.

Figure 7: Bloom's Revised Taxonomy Action Verbs



An example of a program learning outcome would be:

Students will **compare** competing perspectives of historical events using historical evidence.

For more information on PLOs, assistance in writing them and examples see the section on PLOs in the UOEEE Assessment Resources in Canvas.

Concepts and Competencies

Each program learning outcome must include associated concepts and competencies.

Concepts
Concepts are the content areas students need to understand to achieve an outcome and are directly related to the curriculum. Given this, program syllabi and course descriptions are a good place to start when developing concepts. The number of concepts in a higher education program can be abundant, yet not all need to be included in an assessment plan. Concepts can be thought of as "what students should know."

Concepts should describe at a high-level the theories, ideas, paradigms, and understandings that students need to know and acquire during the program to successfully execute the outcome. These theories, ideas, paradigms, and understandings can come from a given profession or field of study that students will draw upon in the successful execution of the outcome. Within the assessment plan, programs can simply list out the concepts needed for students to be successful. The

number of concepts in a higher education program can be abundant, yet not all need to be included in an assessment plan.

Using the example PLO from the prior section, an example of some of the concepts for that PLO would be:

Concepts: The past, history, historical experience, historical records, primary sources, corroborating evidence, historical context

For more information on Concepts see the section on PLOs in the UOEEE Assessment Resources in Canvas.

Competencies
Competencies are measurable components of the learning outcome. Competencies are assessed using measures and predetermined performance criteria. While concepts are knowledge areas, competencies are measurable components of the learning outcome. Competencies can be thought of as "what students should be able to do."

Competencies are directly related to PLOs: they break outcomes into measurable parts. Each PLO has its own set of concepts and competencies. Competencies are the skills, tools, and operational knowledge students need to be able to achieve and successfully execute the outcome. Most competencies are summative in nature and are written for students to be able to achieve upon program completion. A good rule of thumb is that competencies resemble how rubric dimensions break down an outcome into measurable components. For example, the outcome for an accounting program is often to evaluate financial risk for clients. Competencies for such a program would include the ability to assess, analyze, and manage risk using appropriate frameworks. On the other hand, concepts students would master include business law, ethics, process analysis and design, principles of auditing, and monetary unit assumptions.

Competencies differ from general education in that they are unique to a specific program or field, while general education skills are transferable across disciplines. Another differentiating feature is that competencies have measures to determine the degree of learning and performance criteria to establish exact expectations.

Similar to concepts, the number of competencies taught in a higher education program can be abundant, yet not all need to be included in an assessment plan. Programs need to identify the skills and operational knowledge that are summative in nature; in other words, which skills are built from knowing other skills.

Using the example PLO and Concepts set out previously some of the competencies would be:

- Explain the difference between "the past" and "history
- Outline the multiperspectival nature of historical experience, describe the incompleteness of historical records
- Use primary sources to locate evidence of historical events
- Identify corroborating and opposing evidence.

For more information on Concepts see the section on Competencies in the UOEEE Assessment Resources in Canvas.

Curriculum Map

A curriculum map is a visual representation of the relationship between the PLOs and the program's courses/curriculum. Mapping identifies where PLOs are introduced, reinforced, and mastered, and can be very basic or complex. One particular benefit of a curriculum map is clarity of purpose. Mapping and measuring the development of specific competencies throughout the curriculum allows program leaders, faculty, and administrators to take an objective look at the PLOs (not just to succeed on any one assignment but to ensure the development of long-term skills over the course a student's academic career) and help to articulate what students are expected to learn through the program.

NOTE: *Certificate and microcertificate programs are exempt from this requirement.*

UOEEE recommends using the following process:

1. Examine the PLOs and determine where in the curriculum (which courses) they are introduced, reinforced or developed, and mastered. Most assessment occurs at the point of mastery.
2. Work with faculty in the program and determine assignments that would provide opportunities to measure a students' knowledge and ability to demonstrate achievement of the outcome.
3. Create an IRMA map to identify when and where each program outcome is Introduced, Reinforced, Mastered, and Assessed through the core curriculum courses in the program.

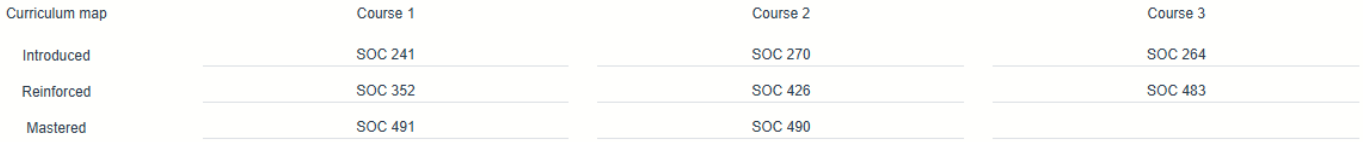
    Introduced – Students are not expected to be inherently familiar with the content or skill at the collegiate or graduate level. Instruction and learning activities focus on basic knowledge, skills, and/or competencies, and entry level complexity.

    Reinforced – Students are expected to possess a strong foundation in the knowledge, skill, or competency at the collegiate or graduate level. Instructional and learning activities continue to build upon previous competencies and increased complexity.

    Mastery – Students are expected to possess a mastery level of knowledge, skill, or competency at the collegiate or graduate level. Instructional and learning activities continue to build upon previous competencies and increased complexity.

    Assess – Artifacts chosen in an assessment cycle to demonstrate students' learning outcomes. Note: There is not a separate line within the portal's mapping element for "assess." Rather, the artifact and the course in which it is measured will be indicated in writing the "measure" element.

Figure 8: Sample Curriculum Map as seen in the Assessment Portal



Curriculum map	Course 1	Course 2	Course 3
Introduced	SOC 241	SOC 270	SOC 264
Reinforced	SOC 352	SOC 426	SOC 483
Mastered	SOC 491	SOC 490	

**The curriculum map in the assessment portal is not intended to be comprehensive of the entire program curriculum. It relates solely to the specific PLO it is associated with.*

Measures

Measures are the tools or instruments used to score students' work. UOEEE recommends using rubrics as direct measures of student learning when possible.

Consistency in writing measures helps external readers understand what is being measured. The measure element should minimally include three pieces of information:

1. Name of the course and course number (e.g., PSY 101, Introduction to Psychology)
2. the artifact being measured (e.g., capstone project, final paper, etc.)
3. the measurement tool being used to make a judgment concerning demonstrable student and graduate abilities (e.g., a faculty developed rubric, a survey, an exam). The measure works in tandem with the performance criteria identifying the expected level of performance. Most of this information is also included in the assessment process but in much more detail and specificity. Both programs and certificates will be required to have at least two measures per outcome.

The example below reflects UOEEE's recommended format for a direct measure:

> PSY 101 Introduction to Psychology: Final Paper will be evaluated with a faculty developed rubric.

Direct and Indirect Measures

Both direct and indirect data are important for evaluating program quality. Direct measures collect data on student learning directly related to knowledge and academic performance as assessed through a program's learning outcomes. Indirect measures can provide information on attitudes, experiences, and perceptions from stakeholders that can help support and explain findings taken from direct assessment data.

Each assessment plan is required to have at least one direct measure of student learning per outcome and one indirect measure of student learning per assessment plan.

Grades in courses or for exams are not recommended as a direct measure. The reason is that they only provide one dimension of learning, correct or incorrect or how many points have been earned rather than where the student's strengths and weaknesses lie in their knowledge. If an exam or final grade is used, programs must include how adequate information can be found that specifically addresses student progress towards the related outcome. Including details regarding the number of items used, and examples of the exam items is helpful. This rationale should be included in the assessment process element within the same outcome. One commonly approved use of exams is to identify and report on a subset of exam items that specifically relate to the assessment outcome.

Rubrics, either faculty-developed or externally validated, are recommended, and preferred for use wherever circumstances allow. Rubrics are preferred over grades (i.e., class and exam grades) since they provide a breakdown of the content and the level of knowledge learned as well as identify trends in the different areas of knowledge. Rubrics or score cards can be paired with a number of student artifacts including class assignments, research papers, capstone projects, performances, laboratory activities, or clinical examinations.

For more information on the Rubrics see the section on rubrics in the UOEEE Assessment Resources in Canvas.

Indirect measures assess students' perceptions and attitudes and can often help explain results obtained from direct assessments. Indirect data is often collected as qualitative or survey type data and can be collected from multiple populations including current/graduating students, alumni, faculty, and employers. Indirect data can be collected in many ways including focus groups or interviews where faculty or students can provide feedback and insight to a program's curriculum or reflective essays asking where and how students learned specific information.

One relatively lesser known aspect of the UOEEE website is the availability of UOEEE collected survey data. UOEEE's Surveys and Systems team is tasked with designing and conducting original survey research for administrative planning, decision making, policy development, accreditation, and official reporting. This directive has led to the creation and implementation of various annual surveys that sample multiple populations (e.g., incoming freshmen, transfer students, graduating undergraduate students, and graduating graduate students among others) whose results are regularly provided to ABOR, HLC, and the Arizona State Legislature among other organizations. These survey results are also available internally to all ASU programs (making it an excellent source of indirect data for program assessment) and can be disaggregated at the college, department, and program levels.

Users with access to the portal can learn more about the different surveys available and access their results by visiting the survey reporting page on the UOEEE website.

Other data such as employment rates, passage rates on professional licensure and certifications can be used if directly relevant to the outcome. UOEEE recommends that programs use information already being collected for accreditors and regulators in their program assessment plan when possible. Accreditation goals and outcomes can also be used assuming they are sufficiently summative and cumulative in nature.

Formative and Summative Measures

Including both formative and summative measures within a program's assessment plan can provide a richer and fuller view of student learning over their long term experience. Formative and summative measures differ in when student learning is assessed.

Formative measures are assessments that occur during the learning process to monitor student progress and help identify instructional areas where continuous improvements can be focused. At ASU, bachelor programs can begin assessing students during the students' 200 and 300 level courses if it is important to measure learning gained while progressing through the program. This can then be followed up with assessments later on in the program up until the point of graduation. Not all students in the program are expected to be assessed but a representative sample should be planned for so it provides reliable and accurate assessment results.

Summative measures are assessments that occur at the point of mastery, often as students graduate from the degree program. They provide insight into a program's bottom line, assessing whether students have achieved the learning outcomes. Data collection after graduation also provides summative data. This data can include licensure exam scores, certification numbers, and student surveys asking students for insight on how well prepared they felt they were entering the workforce. The majority of measures used for assessment at ASU are the summative type.

Returning to our earlier example of a PLO - *Students will **compare** competing perspectives of historical events using historical evidence.* - examples of measures could be:

Direct:

HST 130 The Historian's Craft: Multiple Perspectives module written assignment assessed using a faculty developed rubric.

HST 302 History in the Wild: Perspective Assignment assessed using a faculty developed rubric.

Indirect:

For Undergraduate Programs

The Graduating Student Report Card Survey, specifically the question "To what extent has your experience at ASU contributed to your knowledge, skills, and personal development in the following areas? [incorporating multiple perspectives when solving problems]

For Graduate Programs

The Graduate and Law Student Report Card Survey, specifically the question "How strong was your graduate program in providing training in the following areas? [incorporating multiple perspectives when solving problems]

For more information on the Assessment Process see the section on Measures in the UOEEE Assessment Resources in Canvas.

Performance Criteria

While measures identify the student artifact and tool that will be used to "measure" the outcome, the performance criteria establish the expected level of performance and the proportion of students expected to meet that level of performance. This level of expected performance can be based on longitudinal data, such as past performance or nationally established criteria where available. When not available, performance criteria can be determined by the faculty based on their expertise in the field and then reinforced through longitudinal data collection.

Challenging Criteria

Most performance criteria expect 70% to 80% of students to attain a set level of proficiency for a measure to be considered met during reporting. Performance criteria differs from grading in this aspect. Quite often, criteria are met by a disproportionately high number of students being assessed because performance criteria have not been researched to determine which levels would be challenging to attain. If 100% of students meet a program's criteria in all dimensions of a rubric, then the tool is not sensitive enough or the criteria is too low to be informative. Programs learn the most about their curriculum when they set criteria just above average performance, where more than half, but not all students can be expected to achieve it. Criteria are considered challenging when there is a realistic chance it may not be met by students and graduates. This delicate balance requires faculty to continuously consider quality improvements. This would then provide information on both the strengths and weaknesses of the curriculum.

Because ASU wants criteria to be effective, challenging, and informative, UOEEE does not reward nor penalize programs for meeting or not meeting their learning outcomes within a given year. Outcomes not met are viewed as important data points and opportunities for improvement. Assessment plans are considered effective if they can provide valuable information for making continuous instructional improvements.

Using the example measures set out in the Measures section, example performance criteria could be:

Direct:

HST 302 History in the Wild: Perspective Assignment assessed using a faculty developed rubric.

> **Performance Criterion:** At least 80% of students will achieve a satisfactory (rubric rating:3) or higher marked on the faculty developed rubric (scored on 5 pt scale)

Indirect:

For Undergraduate Programs

The Graduating Student Report Card Survey, specifically the question "To what extent has your experience at ASU contributed to your knowledge, skills, and personal development in the following areas? [incorporating multiple perspectives when solving problems]

> **Performance Criterion:** At least 80% of survey respondents will indicate "Quite a bit" or "Very Much" (4-pt scale).

For Graduate Programs

The Graduate and Law Student Report Card Survey, specifically the question "How strong was your graduate program in providing training in the following areas? [incorporating multiple perspectives when solving problems]

Performance Criterion: At least 80% of survey respondents will indicate "Strong" or "Very Strong" (5-pt scale).

For more information on the Assessment Process see the section on Performance Criteria in the UOEEE Assessment Resources in Canvas.

Assessment Process

The assessment process should describe the approach or method developed to measure the PLOs. The assessment process can be broken down into categories or written in a narrative. A detailed process allows for future replication providing a level of validity. Details and descriptions that should be included in the process are:

1. **Population:** The population **used for the data collection.** Example: students in the major or students in their last semester or from a specific campus participated in this assessment.

2. **Description of each measure:** Describe each measure completely**.** Course name and number, student assignment, tool for measurement.

   Example: Measure One will occur in Course X using the students final capstone project measured with a 5 point rubric.

3. **Description of each artifact:** Describe each artifact (i.e., research paper, capstone project, etc.) being used and the performance indicator for the outcome.

4. **Data process:** Describe how the data will be collected, aggregated, analyzed, and reported. This should include enough details for it to be replicated and explain how the findings will be used for continuous improvement.

5. **Time frame:** Set out the time frame in which the data will be collected and analyzed (i.e., a semester or academic year).

6. **Staff and faculty:** Provide information on the staff and faculty (specific names or roles) participating in assessment planning and data collection procedures.

As previously mentioned, it is important that the assessment process be as descriptive and robust as possible as program assessment plans are accessible by university administration, accrediting bodies, and are available upon request to all stakeholders, journalists, and the public. The validity of the data reported is often based largely upon the process by which the data was collected. A thoroughly descriptive assessment process allows for replication, as well as, the proper context in which to interpret the data.

Lastly, a program's assessment process will align with other elements of the assessment plan much like concepts and competencies. As such, a well-developed assessment process will aid programs in identifying appropriate "measures" along with their "performance criterion."

For more information on the Assessment Process see the section on Competencies in the UOEEE Assessment Resources in Canvas.

Program Learning Outcomes Published in Degree Search

It should be noted that as required by the Higher Learning Commission, a program's learning outcomes (PLOs) will be made public via ASU's *Degree Search* site following the completion of a program's APR. In addition, all assessment materials, including assessment plans and reports, could be reviewed by accrediting bodies and other external stakeholders. As such, programs need to be aware of these audiences when writing a new program assessment plan and provide detailed descriptions that leave readers with a strong understanding of what each element in the assessment plan is intended to achieve. Well-developed assessment plans give decision-makers confidence to support the program. For additional information about the university process for establishing new programs, please visit the provost office's web page on curriculum development.

Program Disestablishment

Programs found within UOEEE's assessment portal are annually pulled from ASU's Institutional Analysis official records of established programs. Given this, the primary means of officially removing a program from UOEEE's assessment portal is to complete ASU's disestablishment process. The disestablishment process can be initiated via the academic plan process within the Kuali Curriculum Management System. For more information about the process, please visit the Office of the University Provost's web page.

Questions?

Please contact the UOEEE Assessment Team at assessment@asu.edu.

Appendix A: Assessment Plan Rubric

Plan Dimension	Levels of Performance		
	3 - Excellent	**2- Meets Expectations**	**1 - Revisions**
Overall Assessment Plan	No Revisions, Strong	No Revisions The overall expectation for an assessment plan is that there is a mission and goals that explain the purpose of the program and how it serves the students as well as support the university mission. Outcomes	Necessary Revisions, See comments
Mission	Includes all three components. Exceptionally well-articulated mission. The reader understands the uniqueness of the program	Includes: 1. Purpose and values of your program 2.How you serve students 3.Alignment with the university mission.	• Needs to explain the purpose of the program. • Needs to explain how it is an academic program and serves students. • Need a statement about how the program mission supports the University mission (i.e. Community good, innovation, research, academic excellence, diversity). • Other, see comment.

Goals	Goals align perfectly with the mission statement and program learning outcomes. They describe what is expected from all students in the program. As a group they are comprehensive.	Goals expand on the mission statement. They describe what the program expects all students to achieve. There is alignment between the goals and mission and outcomes. Goals include skills and knowledge students must be able to demonstrate to be academically successful in the program?	● The goals need to be revised so they align with the mission ● The goals need to be revised so they state what the program expects all students to learn or achieve. ● Other, see comment.
Outcomes	Outcomes are specific to the program/field (vs. broad general outcomes that could fit multiple programs such as general communication skills). The outcomes match the level of rigor expected for the degree through the verbs used for measuring learning. Outcomes lend themselves to multimodal assessment. Outcomes have been vetted by all stakeholders including faculty and students.	Program Learning outcomes are observable and measurable achievement of knowledge acquired from participating in an academic program. Outcomes reflect the level of learning and rigor expected for the degree being issued.	● Outcome needs to be revised so that it is more specific, it is too vague. ● Narrow the focus of the outcome, the content of the outcome is too large (two measures would never provide enough data). ● The outcome needs to be written in measurable terms. ● Revise and use one verb in the outcome. The outcome uses more than one verb which will skew results and have multiple meanings. ● Revise and only have one area that will be measured. The outcome has too many items to be measured (double and triple barreled). ● Use a higher-level verb. The outcome uses a level of verb that does not match the rigor of the level of degree. ● Other, see comment.

Concepts	The concepts present a disciplinary overview of the areas of knowledge that will be learned in order to accomplish this outcome.	Lists relevant knowledge areas, theories or skills needed to be acquired to be able to achieve the outcome. This can be a list of areas.	• Revise the concepts so they state knowledge areas (nouns) that students must acquire to meet the learning outcome • Add more knowledge areas so the content is comprehensive and covers the outcome. • Align the knowledge areas to the outcome. • The knowledge areas and the measures should align. • Other, see comment.
Competencies	The competencies break the outcome into components that are each measurable in their own right and added together present a comprehensive evaluation of accomplishing the outcome.	The competencies break down the outcome into measurable components. Competencies explain the steps or criteria needed to successfully accomplish the outcome. Competencies can often serve as the dimensions of your rubric.	• The competencies need to break down the concepts into measurable components. The categories should all relate directly to the outcome. • Add more competencies. Too few competencies to appropriately break down the outcome (1 or 2). • The competencies need to be measurable. • The competencies need to align to the outcome. • The competencies in total need to be more comprehensive. They do not demonstrate all of the components of the outcome. • Other, see comment.
Mapping	Excellent	Identify where in the curriculum outcomes are introduced, reinforced, and mastered	• Revise cannot use one course for all outcomes. • Revise courses listed in the measures are not listed in the assessment map. • Other, see comment.

Performance Criteria	Excellent	The Performance Criteria is the expected level of performance students achieve using the tool. Identifies expected proportion and minimum performance (rating, score, percentage, survey rating, etc.)	● Identify the percentage of students to meet the PC ● Identify the PC ● Other, see comment.
Assessment Process	Excellent	The assessment process helps with validity and the ability to repeat the process. It should include: a. the population you will be assessing b. explanation of each measure including the course they will be assessed in and the tool you will use (rubric) c. time frame (where students are in the curriculum) d. the assessment team which is the faculty that will be participating in the process e. how you will collect and analyze the data f. how you will use the data -- share data with faculty and use data for continuous improvement of the curriculum.	● Add the student population being assessed. ● Add description of the measures and tools. ● Add description of process. ● Add description of how data will be analyzed. ● Add a description of how data will be shared (with faculty), e.g. data will be shared with faculty and used for continuous improvement of the curriculum. ● Other, see comment.

Appendix B: Assessment Report Rubric

Report Dimension	Levels of Performance			
	3 - Exceptional	**2- Adequate**	**1 - Not Adequate**	**0 - No Evidence**
Overall	Characteristics of an excellent assessment report include, but are not limited to: data (quantitative and qualitative) that provides rich information on student progress towards outcomes, multimodal assessment, detailed descriptions of faculty roles and how faculty are using the data to close the loop.	Characteristics of an overall good assessment report include, but are not limited to: data that provides adequate information on student progress towards outcomes, a valid and reliable methodology resulting in good data, detailed descriptions of faculty roles and how faculty utilized data for continuous improvement.	Characteristics of an overall poor assessment report include, but are not limited to: data that provides little to no information on student progress towards outcomes, methodology that does not provide valid or reliable data, lacks detailed descriptions of faculty roles and how faculty utilized data for continuous improvement.	No evidence
Faculty	The report identifies an assessment team that includes multiple faculty/staff members involved in all stages of the process. Faculty involvement aligns with the assessment plan description	The report identifies an adequate group of faculty/staff members involved in the assessment process either collecting data, analyzing, sharing or using data for improvement. Faculty involvement aligns with the assessment plan description	The report identifies the faculty that conducted the assessment but the assessment team was too small and there is no indication that the assessment was shared with relevant and multiple stakeholders. Faculty involvement does not align with the assessment plan description	The report does not specify or identify how faculty participated in the evaluative process. No evidence of faculty participation was provided
Reflection	Faculty analyzed and applied assessment results for programmatic improvements Demonstrated thoughtful recommendations for closing the loop and using data for improvement.	Faculty analyzed the data and made reasonable recommendations for improvements or provided rationale why improvements would not be needed. OR concluded that no changes were necessary	Faculty reported on assessment data but did not make well thought out recommendations OR concluded that no changes were necessary based on the data.	No evidence

Measure Adequacy	All required measures are present, align with the learning outcomes and meet best practices.	All required measures are present and most align with the learning outcomes and/or meet best practices	Required measures are missing, and/or most measures do not align with the learning outcomes and/or meet best practices.	No evidence
Rigor of the Performance Criteria	Performance criteria are set at a sufficiently high percentage, use meaningful thresholds and are not being met by all students	Performance criteria are set at a sufficiently high percentage, use some meaningful thresholds and have no more than 2 measures being met by all students.	Performance criteria are not set at a sufficiently high percentage and/or the thresholds are not meaningful and/or all students are meeting most of the measures.	No evidence
Data	All data was collected and disaggregated, when required. Context was provided for the data. The sample size was sufficiently large (ideally 20%).	Data was incomplete but missing data was accounted for. Context may or may not have been given for the date. The sample size is sufficiently large (ideally 20%)	Data is incomplete and/or missing data is not accounted for, No context is provided for the data and the sample size is not sufficient (too low or includes a sample size that exceeds total enrollment.	No data was provided.

Appendix C: Assessment Plan Element Examples

Program Learning Outcome

Students will **compare** competing perspectives of historical events using historical evidence.

Concepts

The past, history, historical experience, historical records, primary sources, corroborating evidence, historical context

Competencies

- Explain the difference between “the past” and “history
- Outline the multiperspectival nature of historical experience, describe the incompleteness of historical records
- Use primary sources to locate evidence of historical events
- Identify corroborating and opposing evidence.

Measures and Performance Criteria

Direct:

HST 302 History in the Wild: Perspective Assignment assessed using a faculty developed rubric.

> **Performance Criterion:** At least 80% of students will achieve a satisfactory (rubric rating:3) or higher marked on the faculty developed rubric (scored on 5 pt scale)

Indirect:

For Undergraduate Programs

The Graduating Student Report Card Survey, specifically the question “To what extent has your experience at ASU contributed to your knowledge, skills, and personal development in the following areas? [incorporating multiple perspectives when solving problems]

> **Performance Criterion:** At least 80% of survey respondents will indicate “Quite a bit” or “Very Much” (4-pt scale).

For Graduate Programs

The Graduate and Law Student Report Card Survey, specifically the question “How strong was your graduate program in providing training in the following areas? [incorporating multiple perspectives when solving problems]

> **Performance Criterion:** At least 80% of survey respondents will indicate “Strong” or “Very Strong” (5-pt scale).

UOEEE Program Assessment Resources

UOEEE Home Page: https://uoeee.asu.edu/

UOEEE Assessment Workshops Page: https://uoeee.asu.edu/assessment-workshops

UOEEE Assessment Portal: https://uoeee.asu.edu/assessment-portal

UOEEE Assessment Resources (Canvas): https://canvas.asu.edu/courses/81507/modules

UOEEE Survey Reporting Portal: https://uoeee.asu.edu/survey-reporting

ASU Academic Program Review Portal: https://provost.asu.edu/academic-program-review

AAC&U VALUE Rubrics: https://www.aacu.org/value-rubrics

Carnegie Mellon University:

https://www.cmu.edu/teaching/assessment/assesslearning/rubrics.html

Higher Learning Commission: Guiding Values

https://www.hlcommission.org/Publications/guiding-values.html

Assessment References from ASU Library Resources

General Resources

- Assessment Clear and simple: a practical guide for institutions, departments, and general education Barbara Walvoord: 1st ed. San Francisco: Jossey-Bass c2004
- Assessing student learning: a common sense guide: Linda A. Suskie 3rd ed. San Francisco: Jossey-Bass c2018
- Down and In Assessment Practices at the Program Level (2011) NILOA

Program Specific Resources

- Assessment in Mathematics Education: Large-Scale Assessment and Classroom Assessment Suurtamm, Christine; Thompson, Denisse R.; Kim, Rae Young; Moreno, Leonora Diaz; Sayac, Nathalie; Schukajlow, Stanislaw; Silver, Edward; Ufer, Stefan; Vos, Pauline: Springer International Publishing, Cham 2016 (online text)
- Research Assessment in the Humanities: Towards Criteria and Procedures / Hans - Dieter Daniel; Sven E. Hug; Michael Ochsner. Springer 2016 (online text)
- Assessment in the Science Curriculum / Marlow. Ediger. S.l. : Distributed by ERIC Clearinghouse 2001
- Assessment in Student Affairs, Second Edition John H. Schuh, J. Patrick Biddix, Laura A. Dean, and Jillian Kinzie (online text)
- Outcomes assessment for law schools / Gregory S. Munro (Gregory Scott), 1948-Gonzaga University. School of Law. Institute for Law School Teaching. Spokane, Wash. : Institute for Law School Teaching, Gonzaga University School

of Law c2000

- Measuring up: educational assessment challenges and practices for psychology Dana Dunn; Chandra Mehrotra; Jane S Halonen: Washington, DC: American Psychological Association c2004 (online text)
- The problem of assessment in art and design Trevor Rayment Bristol: Intellect 2007
- Assessment in business education Jim D Rucker; Ramona J Schoenrock; National Business Education Association: Reston, Va. : National Business Education Association 2000
- Assessment in the History Curriculum Marlow, Ediger : S.l. : Distributed by ERIC Clearinghouse 2000