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Arizona State University’s Approach to Program Assessment

The Arizona State University (ASU) Charter is the university’s mission statement and drives all college, department, and programs level mission statements and program goals.

“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.”

At ASU, program assessment is dependent on faculty cultivating and maintaining a culture of continuous improvement. These activities include faculty writing and refining assessment plans, overseeing the collection of results data, and providing continuous improvement guidance to ensure students can demonstrate the development of skills and knowledge necessary for academic success in the program.

The University Office of Evaluation and Educational Effectiveness (UOEEE) consults with academic units as they develop and implement strategies to measure student learning at the program level. Strategies include the identification of learning outcomes, the means for measuring student learning on those outcomes, and follow-up activities to review and act on assessment data. The purpose of these efforts is to provide information that can improve student learning.

With the pace of information increasing rapidly, coupled with ASU’s innovative spirit, the demand is strong for instruction to be continuously reviewed and upgraded, impacting every program at the university. For any program to not be innovative and offer cutting edge education to students who have chosen ASU is unacceptable at the institution. Program assessment is the tool being used by most by colleges and universities across America and the format followed by ASU provides information to the Arizona Board of Regents, the Higher Learning Commission, and other accrediting and regulatory bodies.

It is helpful for faculty and other contributors to remember the information contained in the program assessment portal is public and accessed by university administration and accrediting bodies—and is available upon request to all stakeholders, journalists, and the general public. Therefore, it is crucial for the information contained in plans and reports to be as descriptive and robust as possible while remaining concise and being understandable to readers not in the program’s field.

This handbook has a section for each element in a program assessment plan, containing instructions to help complete plans and information on academic program review’s (APR) use of assessment results and ABOR new and currently plan expectations. In addition, there are links to program assessment-related references and examples beginning on page ___. Furthermore, UOEEE can be contacted directly for program, department or college-level consultation and instruction assessment@asu.edu
Key Processes and Due Dates:

New degree program plans: The program assessment process at ASU begins with the submission of an assessment plan. When UOECE has approved the plan, programs can begin the assessment process leading to an annual report based on the plan. New degrees, bachelor, master, and doctorates, will then go through the Arizona Board of Regents approval process. Undergraduate and graduate certificates do not go to ABOR for approval, yet must receive the same assessment attention as full degree programs to meet Higher Learning Commission and specialized accreditation standards.

Colleges will be notified by ASU’s provost office which programs submitted during each spring are approved to move on through internal and ABOR approval processes. This notification will usually happen in late spring. At this point, degree programs have until July 15th to submit assessment plans to UOECE for eventual provisional approval. By August 31st, all new degree program plans going to ABOR need to have completed the UOECE review process and have provisional approval to be able to complete all application descriptions.

Annual Assessment Reports: At the completion of the academic year, which coincides with the end of the spring semester, programs can begin the annual reporting process. It is best to collect assessment results prior to the beginning of the fall semester when findings can be developed while memories of the year’s assessment activities are relatively fresh and before fall teaching duties begin. Therefore, annual assessment reports are due from program leaders to their assessment delegates by August 15th in 2020 and July 15th thereafter, to ensure delegates have time to process reports and clarify questions before the final submission date of September 30th.

Annual Plan Reviews: After annual assessment reports are finalized, programs can begin reflecting on necessary changes to the assessment plan. Plans need to be reviewed by December 2nd each year. When plans need changes or additions, these can be made during the fall semester when there is time to have UOECE review and approve the changes. If a plan has made recent improvements and is implementing the changes, it is acceptable for plans to continue for up to three years as is. Plans that have not been updated in three years need to perform an extensive review to ensure the plan is as up-to-date and demonstrating innovation whenever possible.
New Portal Main Page
Tabs have been replaced with tiles and link tiles to reports and plans by status, allowing a more comprehensive overview of progress as programs complete the annual cycle. The image below is an example of the new main page, and delegates and designees will see similar information for the schools and colleges they have portal access. Program level users will be privy only to the program plans and reports they have been granted access.

Clicking on buttons inside of the tiles takes users to lists of programs with that current status. These lists contain links to view plans and reports, as well as links to edit both where appropriate. The exceptions to this being the program status tile, which are lists only. (note: delegates and administrators will have access to a user access management tile where they can view who has portal access to their college, departments, and programs, and can request changes according to evolving needs.

For new program plans, delegates can use the green circle with the white plus sign in the new program applications tile to open up the submit new program form. Completing this form creates a new record in the UOEEE portal that can then be used by all who have access. After the new plan is created, all people with college and department level access will automatically have access to the new program. Program level users, however, will need request access by sending an email containing the new program’s official title, the academic plan code (if possible), and the ASUrite identification of the person needing access to assessment@asu.edu.

Portal Main Page Tiles

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<thead>
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```
Components of a Program Assessment Plan at ASU

The following is a list of components that are required to have a robust description in any assessment plans used at ASU, for full degrees and certificates. Graduate degree and certificates do not provide general education skills and habits in assessment plans, yet all other components are required for UOEEE provisional plan approval.

1. Mission Statement: There is one mission statement per program. Mission statements need to be program-level, if possible, or department or college-level, if program-level is not possible.

2. Program Goals: There is one set of program goals per program. Program goals are used to delineate instructional areas in the learning outcomes. Having at least one learning outcome per program goal is necessary to ensure all goals are being assessed.

3. Learning Outcomes: A minimum of three outcomes are required for each plan, yet there should also be an outcome for every element in program goals. Having an outcome for each element ensures goals are fully measured.

4. General Education - Undergraduate Only: All undergraduate programs must provide instruction in all nine areas of knowledge and identify the GE skills and intellectual habits addressed in the program’s curriculum. The UOEEE program assessment portal helps programs align general education requirements to the areas of knowledge.

5. Concepts: Plans need to identify the principles and theories students and graduates must be able to demonstrate to be successful during the program, in advanced studies, and professional careers.

6. Competencies: Students need to be able to demonstrate mastery of skills, tools, and knowledge sets specific to their program. Concepts are what is being applied and competencies are the tools necessary to make the application successfully, evaluative judgments, solve problems, and create solutions.

7. Assessment Methods: Readers need to know what type of research instruments are used, when in the program, if accreditation or regulatory bodies are involved, and how the data will be used for continuous improvement.

8. Measures: Information needed for an effective assessment of programs to determine if 1) learning outcome element is being addressed, 2) what the artifacts or other data sources are being used and, 3) when in the program the assessment will take place.

9. Performance Criteria: Most often described as the percentage of students reaching a level equal to mastery for a given measure, performance criteria need to be meaningful. If large proportions of students are successful based on a criterion, there is little useful information attained to make meaningful instructional improvements. Determining a challenging, yet accomplishable, a criterion for program success is vital to help drive instructional quality forward.

The following sections in this handbook provide greater detail for each of these components and further questions can be directed to the UOEEE program assessment team at assessment@asu.edu
New Program Application Tile and Example of Program List
Delegates, designees, and administrators can start a program by clicking on the green plus sign in the new program applications tile and completing the submission form. Once new program plans are in the UOE EE portal, they can be accessed through the status buttons within the tiles. Once the list opens up, editing a plan is possible by clicking on the blue symbol under the ViewEdit column.

Plan Features
The assessment plan portal page has three features to help programs communicate over time, track editing history and access handbook information quickly. All three features can be accessed from a small grid in the upper right corner of the assessment plan page. The features can be used as follows:

- The Comments section allows anyone with access to the plan to record comments for others to read and act upon accordingly. Over time, these comments can be used to record program challenges and developments and help guide future assessment processes.
- The History section documents when changes to the plan have occurred and the person saving those changes. This information can be important to showing plan development over time.
- The Handbook icon opens up buttons in the plan that are linked to information in the Program Assessment Handbook. Brief and extended descriptions, as well as links to the handbook, are provided for by clicking on the “book” button next to each plan element.

Note: To return to the main page, click on gold arrow in the maroon box. Using the browser “back” arrow can take the user out of the portal.
Program Assessment Plan Edit Page

The plan edit page is where new plans are first written and where they are later revised. From a program’s mission and goals, through the program learning outcomes, and for undergraduate programs, general education Areas of Knowledge, this form is the home for each plan.

In addition, if a plan is new and has been provisionally approved by UOEEE, a toggle button entitled ABOR Submission allows users to access additional space and instructions for completing adaptations needed for the ABOR new program application sections on measures. For more information, follow this link to the section on new programs and ABOR.

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**Marine Biology (UEMARBIO)**

**Approved**

Gerald Bernstein

(Director)

**METH**

**Report**

**Goal**

The mission of the Marine Biology program is to train students to be effective researchers in the laboratory and in marine habitats, and use communication skills to convey research findings to policymakers and stakeholders.

The SS in Marine Biology has three primary program goals, and based on original undergraduate research to be produced and communicated over the course of the program. These goals include demonstration mastery of 1) proper application of the principles of biology demonstrated while following standard laboratory procedures necessary for analysis of marine specimens, 2) proper field data collection procedures for analysis.

**Program Learning Outcomes**

1. Students will demonstrate mastery of performing laboratory analyses of marine flora and fauna to determine the health of sampled organisms, include the recognition of common pathogens.

   **Concepts:**

   Students will apply the principles of biology, chemistry, and evolution to analyze the health of marine organisms from divergent coastal ecosystems.

   **Competencies:**

   Students will demonstrate the ability to dissect, analyze, and compare flora and fauna samples, utilizing statistical models to determine the impacts of environmental variation.

   **Measure 1.1**

   Students will perform a biological analysis of one type of marine plant or animal from two or more divergent coastal ecosystems.

   **Performance Criterion 1.1**

   Eighty percent of students in MB270 will demonstrate competence in dissection and analysis of marine organisms, as assessed using a faculty-developed scoring rubric.

   **Measure 1.2**

   Students will perform comparative statistical analyses using laboratory results from the divergent coastal ecosystems, with particular attention to pathologies.

   **Performance Criterion 1.2**

   Eight percent of students in MB270 will demonstrate competence performing comparative statistical analysis, determined by faculty-developed scoring rubrics.

   **Assessment Process:**

   During the student’s sophomore laboratory course, samples of marine organisms will be supplied by the marine biology department. Students will use ASU laboratories and computer equipment to dissect and analyze results, and their performance will be determined by faculty using rubrics specific to marine biology. Results from all program outcomes will be combined to develop findings and guide continuous improvement efforts.
Mission Statement

Mission statements used by programs need to be related to mission statements created at the department and college levels and support the University's Charter (mission). The space in the UOEEE portal for a mission statement is intended to provide a reference point for program goals, as well as all other components contained in ASU program assessment plans. In essence, there needs to be a conceptual tie between the mission statement, program goals, and what is being assessed to report annually.

If a program has developed a mission statement, this is the preferred language to be included in the UOEEE portal. If a program-level mission statement has not been developed, the program needs to use department or college mission statements in the UOEEE portal.

1. The university mission/charter is the foundation upon which everything we do should be based. College mission statements, and in turn, departmental and program mission statements, should flow from and directly support the overall institutional mission. It should not be difficult to “connect the dots” and see the relationships among an institution and the academic and non-academic units that compose it.
2. Accreditors will evaluate how well an institution executes its mission through its academic programs and other endeavors.
3. Because it can be easy to forget the importance of university charter, or college/school and department missions in all that we do, assessment planning time provides an excellent opportunity to call our attention back to these statements of ‘who we are and what we are about.’ This may prompt some faculty to review school or department mission statements and consider whether it is time to update them. That, in turn, may prompt fresh thinking about curriculum planning or other activities. Although this is not the primary purpose of assessment planning, it is one example of the unexpected benefits that some faculty report as a result of this process.
4. Assessment outcomes must be directly related to the department mission (and, by extension, those of the university and college). You will be asked to evaluate these relationships as we prepare to develop learning outcomes.

The UOEEE assessment team does not evaluate the quality of the mission statements prepared by our academic or non-academic units. This information is only to help faculty focus on these directives as plans are developed and implemented.
Program Goals

What skills and knowledge must students be able to demonstrate to be academically successful in the program? What skills and knowledge must graduates have mastered upon graduation to be successful in their career and/or advanced academic endeavors?

Program goals provide more detail than the mission/charter on what is to be accomplished with the assessment plan outcomes, thereby helpful to operationalize mission/charter statements in a manner that allows outcomes and measures to be developed. Program goals often number between three and six per program, and identify the theoretical and technical areas students must master. These goals can be used to delineate the outcomes that need to be assessed in a program’s plan. As an example, a plan with four program goals can also have four programs outcome, with two measures each.

Programs need to have goals related to the academic development of the students (formative measures) and the eventual outcomes of the graduates (summative measures). As discussed earlier, program assessment at ASU measures student performance during the program to help faculty identify instructional areas for improvement (formative) and graduate skills and abilities (summative).
Outcomes

For all program assessment plans there must be three outcomes with two measures each. This produces just six data points from which to assess often complex degree and certificate programs. Therefore, programs are encouraged to not limit the number of outcomes to three, but develop as many learning outcomes as necessary to create accurate program findings and support a faculty-driven culture of continuous improvement. Ideally, there is a learning outcome for each program goal.

Outcomes and concepts are very closely related in they speak about what students will demonstrate using the related measures. Outcomes, however, are more detailed as to what is being learned. The items described in the outcomes can be related to measures and artifacts, while concepts relate to program goals and mission statements.

The language for outcomes needs to take on a positive tone and focus on students demonstrating accomplishments. It is vital to use the correct pedagogical level in describing what students are accomplishing. As an example, students in 100 and 200 level course need to, at the least, be able to “remember” and “understand” key theories and ideas related to their field of study. Upper-level undergraduate students need to be able to “apply” and “analyze” key theories and ideas in their field. Finally, graduate-level students must be able to “evaluate” and be able to make judgments concerning key issues in their field, as well as “create” solutions that can be effective.

In addition, assessment plans should not limit students pedagogically; if sophomore-level courses teach students to apply and analyze in a program, this is a benefit to the students and can be considered higher quality instruction. Conversely, upper-level undergraduate courses that only reach the pedagogical levels of remembering and understanding, or graduate courses that only analyze and apply, are considered pedagogically weak and of inadequate instructional quality. Such plans may not be eligible for UOEEE plan approval.

Please review the following diagram of Bloom’s Revised Taxonomy for a visual portrait of the varying level of pedagogical training. Two pages away is a wheel of action verbs and artifacts to help understand the terms and concepts behind each pedagogical level.
Bloom’s Taxonomy Pyramid

Bloom’s Taxonomy

- **Create**
  - Produce new or original work
  - Design, assemble, construct, conjecture, develop, formulate, author, investigate

- **Evaluate**
  - Justify a stand or decision
  - Appraise, argue, defend, judge, select, support, value, critique, weigh

- **Analyze**
  - Draw connections among ideas
  - Differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

- **Apply**
  - Use information in new situations
  - Execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

- **Understand**
  - Explain ideas or concepts
  - Classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

- **Remember**
  - Recall facts and basic concepts
  - Define, duplicate, list, memorize, repeat, state
Bloom’s Revised Taxonomy Action Verbs

The following wheel, borrowed from Johns Hopkins University’s Whiting School of Engineering, begins with the same information in the pyramid above, then presents action verbs for each category and finally gives an example of student artifacts the qualify for each category.

General Education—Undergraduate Only

To meet new general education skill and habit expectations, all new programs, those undergoing academic program review (APR), or those choosing to upgrade assessment plans to meet new standards must now provide the following information on how general education-specific activities are to be assessed.

General Education Knowledge Area Table

- Plans must describe how each area of knowledge is covered by the program using an assigned check and text boxes on the plan edit page in the portal.
- As part of these general education descriptions, plans must include the nine intellectual skills and habits prescribed for all bachelor-level degrees and certificates.
- Programs will need to identify the level of assessment that will be used for each area of knowledge, 1) measure, 2) proxy, or 3) narrative. There are checkboxes in each area of knowledge that need to be marked and brief descriptions need to be written (see snapshot below).
- A measure will be the most usual choice for assessing general education areas of knowledge, as a measure is defined as an assessment designed/adapted and performed by faculty. When the measure box is checked, a dropdown will appear that allow the plan writer to choose where in the plan areas of knowledge are demonstrated.
- A proxy is an assessment performed by a legitimate professional or regulatory/accrediting organization or professional association, as opposed to faculty. Examples of a proxy include 1) testing by state or national regulatory board, 2) internships in the student’s area of study, 3) peer-reviewed publications and conference presentations.
- A narrative is reserved for general education areas of knowledge that are assessed by general studies coursework or processes. A narrative is a brief description of how students will master skills and knowledge not focused on a program’s curriculum, yet are thoroughly covered through general studies course requirements.
- It is expected that plans will develop to the point where most areas of knowledge are identified in a plan as a measure or proxy, and few, if any, are narratives.

![General Education Knowledge Area Table](image-url)
In addition, the following instructions, directly from ABOR Policy 2-210, must be kept in mind while developing undergraduate programs.

ABOR Policy 2-210:
https://public.azregents.edu/Policy%20Manual/2-210%20General%20Education.pdf

- Evaluation of general education is also part and parcel of the review of the learning objectives of each degree program and those outcomes are reflected in the academic program reviews.
- Effective assessment depends fundamentally upon measurement and does not rely exclusively on a single project or capstone course. It will inform curricular refinements and allow faculty & administrators to reconsider programs that do not meet expectations in terms of learned concepts and competencies.
- Each university will utilize rubrics, based on national standards or locally developed, to gauge whether students master the essential learning outcomes and intellectual qualities that are outlined in the policy.

General Education Skills and Intellectual Habits Rubrics

<table>
<thead>
<tr>
<th>Skills and Habits</th>
<th>Potential rubrics for use and adaptation</th>
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<td>AAC&amp;U: <a href="https://www.aacu.org/">Written communication</a></td>
</tr>
<tr>
<td>Verbal Communication</td>
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</tr>
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<td>Lifelong Learning</td>
<td>AAC&amp;U: <a href="https://www.aacu.org/">Foundations and skills for lifelong learning</a></td>
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</tbody>
</table>

AAC&U VALUE Rubric Categories and Definitions--https://www.aacu.org/
Concepts

Concepts cover the knowledge areas, theories, and principles students will draw upon in the successful execution of the outcome. This is a high-level description of the theories, ideas, paradigms, and understandings that comprise a given profession or field of study. Concepts can be viewed as the bridge between program goals and the skills and knowledge students must demonstrate mastery. Most academic fields and professions have a number of theories and principles that are mandatory for students to acquire during the program and afterward for graduates to demonstrate mastery. By identifying and grouping concepts as they relate to the program goals and outcomes, competencies and measures can then flow from the concept groupings.

As described earlier, it is important for assessment findings and continuous improvement efforts to relate directly to the program goals and mission statement. This linkage can only be accomplished when concepts in the assessment plan are related to the overall intention of the program and are measured by assessment results. Generally, the purpose of a nursing program is to produce registered nurses. Therefore, which theories and principles do students need to demonstrate, throughout the program and at/after graduation, to be successful in their careers and advanced educational endeavors.

Concepts differ from competencies in that competencies are specific skills and knowledge sets students will demonstrate during the program and have mastered at program completion. As an example, an accounting program can incorporate the concepts of business law, ethics, process analysis and design, principles of auditing, and monetary unit assumptions. The competencies are the tools necessary to operationalize and implement accounting concepts and can include database proficiency, report writing, project management, business statistics, and leadership.
Competencies

Competencies cover the skills, tools, and operational knowledge students will draw upon in the successful execution of the outcome. These are the skills and knowledge sets that are unique to the program, as opposed to general education skills and habits that are transferable across disciplines.

Have nurse practitioner students and graduates demonstrated the ability to diagnose and prescribe treatment for the medical conditions they are trained? Can political science students specializing in polling able to effectively analyze survey results to predict election results? Can student pilots perform proper safety checks to ensure safe aircraft operations?

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.

Assessment Methods

Assessment method descriptions need to detail the type of instruments to be used, when in the process they will be used, describe any professional certification or accreditation involvement (if any), and if findings will be used to drive a continuous improvement cycle. This “methods section” is needed for each outcome and needs to relate closely to the performance criteria listed in each measure.

This section is important for those currently involved in the program, as well as those who will be in the future, to understand when activities need to occur and what will be the result.

The methods section is used in the ABOR application for new programs. Therefore, it needs to be descriptive enough for “cold” readers to understand how the assessments are conducted and concise enough to be fit in the ABOR application.
Measures

Measure and performance criteria work in tandem, with measures identifying the artifact, performance result, or other documentation used to make a judgment concerning demonstrable student and graduate abilities. Measures also detail when in the program the assessment will occur and, often, who will be collecting related data. There must be enough information contained in the measure concerning what the artifact or other source is involved, when in the assessment cycle the artifacts will be assessed and who is responsible for performing the assessment—usually course faculty. The information should be sufficient for those performing future assessment activities know what is done, when, and by whom.

Most often, the faculty will be responsible for collecting assessment data and, therefore, need to know what is expected and when. When a measure uses information not generated by faculty, as when professional certification, internships, or alumni surveys are involved, non-faculty staff can collect and process the information as long as faculty use these results when developing assessment findings.

Note: Programs are encouraged to use information already being collected for accreditors and regulators in their program assessment plan. It is recommended that accreditation standards are chosen that are more summative/cumulative in nature.

Direct and Indirect Measures
The must be a minimum of two measures for each outcome in an assessment plan and one must be a direct measure. A direct measure is based on a student-produced artifact or performance that is assessed for quality, most often using a rubric or similar approach. Indirect measures use information such as alumni survey results, internship assessments, employment, advanced degrees—items that are not single artifacts directly produced by students but are the result of the student being in the program.

Both direct and indirect are important for understanding program quality, as direct measures can often be used to help identify areas for instructional improvement (formative) and indirect measures can often be used for understanding program outcomes such as certification or employment (summative).

Formative and Summative Measures
Formative Measures: These assessments occur during the learning process to monitor student progress and help identify instructional areas where continuous improvements can be focused. At ASU, bachelor programs are expected to begin assessing students during the students’ 200 and 300 level courses. All students in the program are expected to be assessed or be eligible to be sampled if programs are large and reliability is tested to ensure accurate assessment results.

Summative Measures: These measures are also known as program outcomes. They provide insight into a program’s bottom-line—are students successful in the real world? Are nursing graduates qualified to be registered nurses? Are elementary and high school teachers still in the field three years after graduation?

ePortfolios and Digication
Arizona State University has a digital portfolio system with features that include artifact collection and rubric scoring that can be adapted to the course and program level. Programs are encouraged to utilize the digital portfolio system to help students build their academic repertoires as well as aid in program assessment and continuous improvement. Incorporating rubrics into digital portfolios makes course expectations transparent, allowing students to understand better how levels of performance are determined for a course or program. Furthermore, rubrics utilized within ASU’s digital portfolio system allow faculty, programs, departments, and colleges to create a history of assessment and continuous improvement efforts. See Digication.
Performance Criteria

Most often, performance criteria are based on the proportion of students attaining “mastery” of a subject, skill, or intellectual habit described in an accompanying measure. In the past, artifact grades had been acceptable for criteria, yet this is no longer the case. Rubrics, either faculty-developed or validity confirmed external rubrics, are now required to be used wherever circumstances allow, as with student artifacts and performances. Course grades or completion have never been acceptable at ASU based on UOEEE program assessment instructions.

Because ASU wants criteria to be effective and challenging, UOEEE does not track whether learning outcomes have met set criteria or not. Outcomes not met are viewed as opportunities for improvement and not a punitive issue. Therefore, plans are considered effective if they can provide valuable information for making continuous instructional improvements. Plans are considered challenging when criteria may or may not be met by students and graduates and require faculty to consider quality improvements continuously.

Challenging Criteria

Quite often, criteria are met by students being assessed because performance levels have not been researched to determine which levels would be challenging to attain. Most often, 70% to 80% of students are expected to attain a set level of proficiency for a measure to be considered met during reporting. Yet, a large majority of reports submitted to UOEEE each year for review far exceed the 70% and 80% thresholds. For programs to “push the envelope” and increase the quality of instruction provided, performance criteria need to be based on past performance and faculty expertise as to what would challenge the program.

Rubric Use and Canvas Benefits

Course grades, course completion, and any grade not generated using a grading rubric are not acceptable for program assessment purposes because they do not provide the level of detail necessary for making instructional improvement. Fortunately, rubrics can be an automated part of student assessment by using tools in Canvas to score and report rubric results. For support for this process, contact the Learning Experience Integration Group via ASU’s Learning Management System Training Page: https://lms.asu.edu/training

Rubrics in Canvas Resources

- Assessments with Rubrics - article from ASU Teach Online
- ASU Teaching and Learning Workshops calendar
- Canvas Resource doc - maintained by Canvas
- How do I add a rubric to an assignment? - Canvas Guide
- How do I add a rubric in a course? - Canvas Guide
- How do I manage rubrics in a course? - Canvas Guide
- Rubrics Overview - Canvas Tutorial
- How to create rubrics - ASU Quick Tip

Rubrics can cover general education requirements and apply across subjects, as seen in the Association of American Colleges and Universities (AAC&U), or be an external rubric specific to a discipline and developed and tested for validity and reliability. Furthermore, many programs at ASU develop and use rubrics specific to an assignment. These faculty-developed rubrics are best when addressing an area with no standardized rubric is available, yet when an externally validated rubric is available, its use is strongly encouraged.

The table below demonstrates how a developmental rubric and also be used for both grading and summarizing rubric results.
<table>
<thead>
<tr>
<th>MBI 270: Applied Marine Biology</th>
<th>F</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 60.0%</td>
<td>60.0% to 69.9%</td>
<td>70.0% to 79.9%</td>
<td>80.0% to 89.9%</td>
<td>90.0% +</td>
</tr>
<tr>
<td>Proper Laboratory Procedures &amp; Safety</td>
<td>Beginning</td>
<td>Developing</td>
<td>Adequate</td>
<td>Mastery</td>
<td>Exemplary</td>
</tr>
<tr>
<td>Research Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>91.2%</td>
</tr>
<tr>
<td>Specimen Dissection and Data Collection</td>
<td></td>
<td></td>
<td>79.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>86.3%</td>
</tr>
<tr>
<td>Findings Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94.4%</td>
</tr>
<tr>
<td>Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87.7%</td>
</tr>
</tbody>
</table>
Program Assessment and New Program Applications to Arizona Board of Regents

To ensure new program assessment plans meet minimum qualifications for use by the ASU provost’s office in the application for new degree programs to the Arizona Board of Regents (ABOR).

Language in UOEEE provisionally approved assessment plans is used to begin the new program application process for the Arizona Board of Regents, and for Curriculum and Academic Programs Committee (CAPC) approval. Beginning in 2020, the UOEEE portal will have a process that helps programs translate the information from the UOEEE portal into language that fits the needs of the ABOR new program application process.

Because this new program information will go before ABOR and can be reviewed by accrediting bodies and stakeholders, when writing a new program assessment plan, programs need to remember these audiences and provide robust descriptions that leave readers with a strong understanding of what each element in the plan is intended to achieve. Plans that are written succinctly, demonstrating innovation, proactivity, thoroughness of thought and commitment to making the program as success will give decision-makers confidence to support the program. Program plans with limited information tend to be seen as weak, with less enthusiasm and faculty buy-in than plans that have robust descriptions.

Note: Certificates do not go to ABOR for approval, yet the Higher Learning Commission required all credit-bearing programs, degrees and certificates, must receive equal attention and consideration in assessment and all other areas of accreditation.
Program Assessment and Academic Program Review

The information collected in the UOEEE program assessment portal is used to complete the program assessment sections of the Academic Program Review (APR) self-review. All program plans and reports are archived in the portal. Information entered by programs into the portal at the end of the assessment cycle can be accessed for the seven-year period required by the APR process. In addition, comments produced by UOEEE in the process of reviewing plans and reports are accessible for the APR process. Programs that have cultivated and maintained a culture of continuous improvement can point to the activities and developments that have occurred over the APR review period when completing the related sections in the APR submission form.

In addition, beginning in the 2020-21 APR cycle, UOEEE will be writing an assessment summary for inclusion in each academic unit’s APR report that relates to assessment activities evident in program assessment reports and plan development activities. This summary will be independent of the program’s completion of other APR assessment related sections.

Programs are, therefore, strongly encouraged to be certain faculty participation and use of assessment findings are prominent in annual reports—and plan activities reflect continuous improvement efforts based on these findings.

Areas where assessment supports other APR instructions

7. How do you determine that the content of the degree program is rigorous? Are there disciplinary or professional standards? Do you review other curricula? Do you have an undergraduate capstone course and does it require some synthesis of knowledge from the undergraduate degree experience? Do you use a portfolio to assess students?

8. What innovations have been incorporated into the teaching activities in the department or school?

9. How is technology used to augment and enhance learning for students in face-to-face programs?

10. If online degree programs are offered, are the two modalities assessed differently, and how do the graduates perform compared to those in the face-to-face program?

Excerpts from Arizona Board of Regents Directives (2-208 2-225): Periodic program reviews provide a mechanism for faculty to evaluate the effectiveness, progress, and status of their academic programs continuously.

The program review process is intended to provide a comprehensive assessment of the current status of an academic unit based on its programs, activities and achievements since its last program review. This also provides the unit the opportunity to think strategically regarding its curricular offerings and its future direction. (ASU/APR Website https://provost.asu.edu/academic-program-review).

Program Self-Determination: Faculty’s opportunity to guide program development, control destiny of programs, increase overall instructional quality, and improve graduate success.

VI. Student Learning Outcomes Assessment (Undergraduate and Graduate)
The unit’s self-study should reference the following:

- The unit’s program-level learning goals/outcomes;
- How those goals/outcomes map to the curriculum;
- The unit’s assessment plan (purpose, questions, and evidence gathering methods);
• The reports of assessment efforts already undertaken since the last review;

APR Guiding Principles
• The process should be broadly participatory, involving faculty, students, staff administrators, and relevant community constituents.
• The APR should provide a framework for excellence, an opportunity to explore, enhance, and integrate student learning and faculty teaching, service, and scholarly efforts into the unit’s mission and goals.
• The process should facilitate short-term and long-term strategic planning in areas such as curricular development, resource allocation (e.g., financial, physical), faculty/staff hiring/workload, and research foci.
• The APR provides an opportunity for the university to account for its use of public resources and facilitate support among its various constituencies.
Program Assessment Reporting

Every established program\(^1\) at ASU is expected to report annually on 1) faculty participation in assessment and, 2) how faculty are guiding continuous improvement efforts based on assessment findings. These reports are based on the assessment plan last updated in the UOEEE program assessment portal.

Reporting on assessment activities is 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. Currently, whether program outcomes are meeting expectations is not tracked by UOEEE for analysis purposes. This information is collected in the portal to keep faculty and administrators informed and is designed to help target areas where instruction can be continuously improved.

As described early in this handbook, it is preferred that programs make performance criteria challenging to attain. This drives programs to be innovative as opposed to settling for the status quo for the students who have chosen to attend.

Administrative Support
Faculty can use administrative assistance to enter information into the portal and collect assessment results data. Yet, it must be faculty that review assessment results, develop findings, and provide continuous improvement guidance that is described in the reports.

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\(^1\) Established programs are those old enough to begin reporting, usually two years after the initial semester for bachelor and doctoral degrees, and one year after approval for master degrees and certificates. Programs must be formally disestablished before they are not expected to report annually.
Program Assessment Plan Quality Work Table

There are 12 components in each program assessment plan that are required to be considered acceptable for use at ASU. If any plan component doesn't meet minimum requirements, the entire plan is considered unacceptable. If a plan meets minimum requirements or above on all plan components, or if the plan can be considered innovative, it is acceptable for program assessment use.

The work table below allows any plan to be scored based on plan descriptions. The UOEIE team will use this work table and report scores for new plans beginning in the summer of 2020. Program leadership is strongly encouraged to reflect on the work table when developing new plans and reviewing current plans.

<table>
<thead>
<tr>
<th>Plan Components</th>
<th>Unacceptable. Does not meet minimum plan requirements</th>
<th>Plan is Developing-Acceptable One point per cell</th>
<th>Plan is Innovative-Acceptable Two points per cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>None</td>
<td>College/ Dept Level</td>
<td>Program Level</td>
</tr>
<tr>
<td>Program Goal</td>
<td>None</td>
<td>Dept Level</td>
<td>Program Level</td>
</tr>
<tr>
<td>Outcomes</td>
<td>None to two</td>
<td>Three, minimum</td>
<td>Four or More</td>
</tr>
<tr>
<td></td>
<td>Lowest Two Pedagogical Levels, Bloom Taxonomy</td>
<td>Middle Two Pedagogical Levels, Bloom Taxonomy</td>
<td>Top Pedagogical Levels, Bloom Taxonomy</td>
</tr>
<tr>
<td>General Educ-Undergrad Only</td>
<td>Zero - 4 Areas of Knowledge measured</td>
<td>Five to 8 of Areas of Knowledge measured</td>
<td>All 9 Areas of Knowledge measured</td>
</tr>
<tr>
<td>Concepts</td>
<td>None or not focused on theories, principles</td>
<td>Focused on theories, principles, relates to outcomes</td>
<td>Focused on theories, principles, and drives to outcomes</td>
</tr>
<tr>
<td>Competencies</td>
<td>None or not focused on skills or habits</td>
<td>Focused on skills and habits related to outcomes</td>
<td>Focused on skills and habits, drives to outcomes</td>
</tr>
<tr>
<td>Assessment Methods</td>
<td>Two or fewer components (what, how, when)</td>
<td>What is being measured, how, and when?</td>
<td>Plus, how will findings be applied?</td>
</tr>
<tr>
<td>Measures</td>
<td>None or One</td>
<td>Two, minimum</td>
<td>Three or more</td>
</tr>
<tr>
<td></td>
<td>Indirect Only</td>
<td>Direct Only</td>
<td>Direct and Indirect</td>
</tr>
<tr>
<td></td>
<td>Summative Only</td>
<td>Formative Only</td>
<td>Formative and Summative</td>
</tr>
<tr>
<td>Performance Criteria</td>
<td>Most measures expected to be met easily</td>
<td>Challenging; most measures may not be met.</td>
<td>Challenging, all measures may or may not be met.</td>
</tr>
<tr>
<td>Outcome Level</td>
<td>Any cell means the plan is Unacceptable in current form for program assessment</td>
<td>Plan is developing yet is acceptable for program assessment purposes.</td>
<td>Plan is innovative and should produce reports effective for continuous improvement.</td>
</tr>
</tbody>
</table>

To determine quality level, check the box that best reflects the plan’s description for each component. Total scores; one point for each box in “Developing” and two points for each “Innovative” box checked.
Resource Links

ASU Assessment Links
- UOEEE Home Page: https://uoeee.asu.edu/
- UOEEE Assessment Portal: https://uoeee.asu.edu/assessment-portal
- UOEEE Survey Reporting Portal: https://uoeee.asu.edu/survey-reporting
- ASU Academic Program Review Portal: https://provost.asu.edu/academic-program-review

Assessment in General
- References:
  - AAC&U VALUE Rubrics: https://www.aacu.org/value-rubrics
  - UC Berkeley: https://teaching.berkeley.edu/resources/improve/evaluate-course-level-learning/rubrics
  - Higher Learning Commission: Guiding Values
    https://www.hlcommission.org/Publications/guiding-values.html

Assessment References from ASU Library Resources:

- Assessment in arts education / Philip Taylor ISBN: 9780325007953
- Assessment in Mathematics Education: Large-Scale Assessment and Classroom Assessment (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 social work practice Carol H. Meyer 1924-New York: Columbia University Press c1993
- Assessment: a sourcebook for social work practice Julia B Rauch; Families International (Milwaukee, Wis.) - Milwaukee, Wis. : Families International c1993
- Assessment in Student Affairs, Second Edition John H. Schuh, J. Patrick Biddix, Laura A. Dean, and Jillian Kinzie (online text)
- Assessment in higher education: politics, pedagogy, and portfolios Patrick L. Courts, Kathleen H McInerney: Westport, Conn. : Praeger I993
- 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)
- Assessment in mathematics Kate Bennie ISBN: 9780636035157
• Measuring up: educational assessment challenges and practices for psychology Dana Dunn; Chandra Mehrotra; Jane S Halonen: Washington, DC: American Psychological Association c2004 (online text)
• Assessment for Learning in Law John O. Mudd: S.l. : Distributed by ERIC Clearinghouse 1986
• Assessing public journalism Edmund B Lambeth; Philip Meyer; Esther Thorson: Columbia: University of Missouri Press c1998
• Assessment in Mass Communication Susan Tyler. Eastman: S.l. : Distributed by ERIC Clearinghouse 1993
• The problem of assessment in art and design Trevor Rayment Bristol: Intellect 2007
• Student Assessment in Architecture Schools Sarah M. Dinham: S.l. : Distributed by ERIC Clearinghouse 1988
• Assessment in Management, Nursing, and Teaching at Alverno College Georgine. Loacker: S.l. : Distributed by ERIC Clearinghouse 1986
• Assessment in education D. G. Lewis: New York, Wiley c1975
• Assessment in the History Curriculum Marlow. Ediger : S.l. : Distributed by ERIC Clearinghouse 2000

Articles / studies / reports::
• Down and In Assessment Practices at the Program Level (2011) NILOA

Other sources:
• Assessment of student learning in business schools: best practices each step of the way / Kathryn Denise Martell; Thomas G Calderon