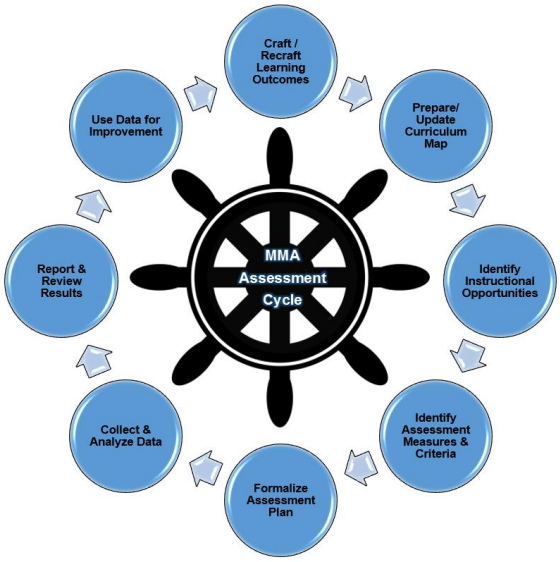
MMA Assessment How-tos Web Page

https://www.maritime.edu/assessment-how-tos

The items on this page are meant to assist you with the different steps in the assessment cycle -- from establishing learning outcomes to using data for improvement. An assessment plan documents your approach toward working through the assessment cycle. In addition to the resources found on this page, Assessment Modules, a free professional development resource about the assessment process, is also available through the Learning Assessment Research Consortium (LARC).



Crafting Learning Outcomes

Student learning outcomes detail the knowledge, attitudes, or skills that will result from a learning experience. They should be written to be detailed, specific, and measurable. The applicable domain of learning (i.e., cognitive, affective, or psychomotor) is also a consideration when writing learning outcomes. One useful method for drafting student learning outcomes is the ABCD method. In conjunction, Bloom's Taxonomy can be utilized to consider the domain of learning.

- Crafting learning outcomes using the ABCD Method
- The three learning domains of Bloom's Taxonomy
- Guide to choosing verbs to craft learning outcomes (cognitive domain)
- Using Bloom's Taxonomy to write learning outcomes (cognitive domain)

Creating Curriculum Maps

Curriculum maps are used to show the relationship between a program's student learning outcomes and its curriculum. A detailed curriculum map will indicate where learning outcomes are introduced, reinforced, and mastered. Additionally, it is useful to indicate where evidence of student learning is collected for assessment purposes.

- Best practices on curriculum mapping (UH Mānoa)
- Sample curriculum map (for a hypothetical B.A. program)
- MMA curriculum mapping template

Identifying Instructional Opportunities and Assessment Measures

Curriculum maps help to identify the relationship of student learning outcomes to instructional opportunities and assessments. Instructional opportunities are the structured ways by which learning is promoted (e.g., class discussions, readings, lectures, problem sets, papers, projects, lab assignments). When paired with clear evaluation criteria (e.g., rubrics), instructional strategies themselves can be useful assessment measures. Assessment measures are the means by which learning will be assessed. Various types of indirect and direct measures can be utilized as tools for assessing student learning. Indirect measures (e.g., surveys, focus groups, interviews) reflect assessments based on reports of learning. In contrast, direct measures (e.g., exams, evaluations, papers, projects) involve assessments that are based on actual observations of learning taking place. Direct measures might be assessed subjectively with raters (e.g., performance tasks assessed using rubrics) or assessed objectively (e.g., standardized exams assessed using answer keys).

It is useful, though not always feasible, to utilize both direct and indirect assessment measures. Different tools are better in some situations than others. Indirect assessments are particularly useful when a learning outcome is not directly observable (e.g., attitudes, values) or when

it might be too time-consuming or resource-intensive to observe. As direct measures, objective tests are particularly good for assessing lower-order learning, but are generally not as useful for assessing higher-order learning. However, the Authentic Assessment Toolbox does offer some strategies for assessing higher-order learning using tests. Student work products and performances are good assessment choices for any situation in which a student is expected to produce something or engage in a process (e.g., instructional strategies like papers, lab reports, music recitals, oral presentations). They also tend to be more useful for assessing higher-order learning.

As noted, instructional strategies, such as assigned papers or projects, that are paired with clear evaluation criteria (e.g., rubrics) can be useful assessment measures. The Degree Qualifications Profile (DQP) Assignment Library is a searchable database of collegiate-level course assignments that link to a variety of expected student learning outcomes. For each assignment, there is generally some background discussion of related course materials. Additionally, the evaluation criteria for the assignment is described or included. Users may browse the DQP Assignment Library and adapt materials for their own use. "Signature assignments" generally address two or more expected student learning outcomes. These assignments and their related rubrics are typically designed collaboratively by faculty and are adopted across multiple sections of the same course.

- Assessment Tools 101 (University of Kentucky)
- Authentic Assessment Toolbox (includes test-writing tips and example performance-based and product-based rubrics)
- Degree Qualifications Profile Assignment Library
- Overview of signature assignments and related resources (AAC&U)
- Using signature assignments for program assessment (UH Mānoa)
- Rubrics for course-based assessment (Eberly Center for Teaching Excellence & Educational Innovation)
- Multiple-choice test item writing guidelines

Collecting and Analyzing Data in Light of Established Criteria for Success

Clear criteria should be established to help make sense of assessment data that are collected. Set targets for student progress in meeting learning outcomes are helpful. These targets can be established in a number of ways. For example, known benchmarks may be used as a reference point (e.g., 60% of students who take a national standardized information literacy exam score at a proficient level). Targets might also be established based on students' past performance and future goals for improvements in their achievement.

While assessment and grading differ in many ways (e.g., assessment looks at student performance at an aggregate level rather than for a particular student), in certain circumstances, the results of assessment measures can be used for grading purposes. Using data from direct measures that are assessed objectively with answer keys (e.g., exams) is more straightforward than using data from direct measures assessed subjectively using rubrics. Because rubrics are generally constructed using an ordinal scale for scoring, this needs to be taken into consideration when using rubrics for grading.

- Converting rubric scores to grades (UNC Wilmington)
- Turning a rubric score into a letter grade (Pearson Education, Inc.)
- How to Use Rubrics for Grading: Chapter 11 in the text, *How to Create and Use Rubrics for Formative Assessment and Grading*, by Susan M. Brookhart (can be found via MMA's ebrary book collection)

Using Data for Continuous Improvement

An often overlooked step in the assessment cycle is to take time out to review and discuss the findings based on assessment data. Some helpful questions to consider during this step in the assessment cycle include the following:

1. Where are we falling short in meeting targets for student achievement? Where are we exceeding targets for student achievement?
2. What changes may be needed (e.g., to the curriculum, pedagogy, learning opportunities) to improve student achievement?
3. (Looking ahead to working through the assessment cycle again) Are any targets for student achievement set too low or too high? Are any modifications needed?

Bringing It All Together: Assessment Plans

At a minimum, assessment plans for a department or program should include the following elements: 1) Mission statement; 2) Student learning outcomes and their relation to any institution-wide outcomes; 3) Curricular map; and 4) Outline of the assessment data collection and review process. A comprehensive data collection and review process outline would include specifics on assessment tools, criteria for success, and timeframes for data collection, analysis, and review. Good assessment plans are manageable and do not attempt to accomplish too much in a short time period!

- MMA Assessment Plan Template
- Excerpt from an Assessment Plan for a Hypothetical Undergraduate Program