

Guidelines for Annual Program Learning Outcomes Assessment Reports

STEP 1: Establish the broad goals for your program. Align these goals with your mission statement.

Program goals are meant to express intended results of an academic program in broad, and sometimes, non-measurable terms. Examples may include: Acquire effective communication skills or increase awareness of discipline-specific ethical values. The goals should align with the mission statement of the program.

STEP 2: Articulate Program-Level Student Learning Outcomes

Learning outcomes describe the measurable and/or observable knowledge, skills, abilities, or values that students should be able to do or demonstrate upon completion of the academic program.

Guidelines/Recommendations:

- Articulate 3-5 program-level student learning outcomes that are specific, measurable and/or observable, and attainable. Select learning outcomes that faculty deem most important for all program graduates to achieve upon degree completion. More than 5 learning outcomes can be included if required by program accrediting agencies, or if faculty believe the learning outcomes are very important for all graduates to achieve.
- Graduate degree programs should have more advanced learning outcomes (and different measures and criteria) in comparison to undergraduate programs in the same discipline.

Tip: Use action verbs in **Bloom's Taxonomy** to describe learning outcomes (see examples below).

- **Remembering (Knowledge):** *Acquire, Arrange, Collect, Draw, Duplicate, Examine, Identify, Indicate, Label, List, Locate, Memorize, Name, Quote, Read, Recall, Recite, Record, Reproduce, Select, Show.*
- **Understanding (Comprehension):** *Associate, Change, Classify, Compute, Conclude, Contrast, Convert, Demonstrate, Describe, Determine, Differentiate, Discuss, Distinguish, Draw, Estimate, Explain, Extend.*
- **Applying (Application):** *Apply, Calculate, Change, Chart, Complete, Construct, Contribute, Demonstrate, Develop, Discover, Dramatize, Employ, Establish, Examine.*
- **Analyzing (Analysis):** *Analyze, Break down, Appraise, Arrange, Conclude, Contract, Categorize, Classify, Compare, Connect, Contrast, Correlate, Criticize, Debate.*
- **Evaluating (Synthesis):** *Appraise, Argue, Assemble, Build, Collaborate, Classify, Collect, Combine, Compile, Compose, Construct, Create, Deduce, Defend, Derive, Design.*
- **Creating (Evaluation):** *Assemble, Appraise, Argue, Assess, Choose, Compare, Conclude, Consider, Construct, Contrast, Convince, Create, Critique, Decide, Defend.*

Examples of student learning outcome statements:

- **Students will demonstrate knowledge of basic biological principles, concepts, and theories through completion of program and national exams.** *(Undergraduate -- Dept. Biology)*
- **Candidates plan and implement instruction based on knowledge of students, learning theory, connections across the curriculum, curricular goals, and community.** *(Undergraduate -- Dept. of Education)*
- **Students will be able to demonstrate the ability to apply knowledge of math to aviation-related problems.** *(Undergraduate -- Dept. of Aviation)*

- **Graduates will demonstrate knowledge of conservation principles.** (*Undergraduate – Dept. of Fisheries and Wildlife*)
- **Graduates will use formal and informal assessment to provide information about and to students, to monitor student progress, and to recommend changes to students' educational environment.** (*Graduate – MEd in School Counseling*)

Key Questions:

What do you expect the graduates of your degree program to know and be able to do?

What makes graduates of your degree program unique from graduates of other programs?

STEP 3: Identify Appropriate Assessment Methods

Below are essential elements of this section:

A. Curriculum Map

Curriculum maps are very helpful in demonstrating **where** in the program's curriculum learning outcomes are being addressed. In essence, a curriculum map consists of a table with two axes, one pertaining to program learning outcomes, the other to courses in the major.

Example of a curriculum map:

Courses <u>Required</u> for the Major*	Program Student Learning Outcomes				
	1	2	3	4	5
ABC 1234	L			L	L
ABC 2345	M	M	L	M	
ABC 3456	M		H		H
ABC 4568 (Capstone)	H	H	H	H	H

Required courses:* Program Learning Outcomes should be assessed in **required courses for the major since all majors in the program must take them. Electives should not be used to assess any program-level student learning outcome as not all students in the major are required to take them.

Note: L, M, and H describe the extent to which students experience the learning outcome. **L=Low emphasis** on the learning outcome; **M=Moderate emphasis**; **H=High emphasis**. Every required course **should** contribute to addressing one or more learning outcome.

B. Assessment Measures or Methods

Assessment measures or methods describe **how** each student learning outcome is met.

- (i) **Direct Measures AND Number of Students Assessed:** This section requires description of direct measure(s) used to assess students' progress toward achievement of **each** learning outcome. Direct measures require students to **demonstrate** acquired knowledge and skills. Below are examples.

- Major course assignments
- Oral presentations*
- Embedded test items
- Capstone projects
- Portfolios
- Pre/Post testing
- Defenses*
- Proposals*
- Research projects/papers*
- Comprehensive exams*
- Qualifying Exams*
- Thesis or dissertations*
- Licensure/Certification exams*
- National/standardized exams*
- Internship/Practicum Evaluation*

**These measures are suitable for assessing graduate level learning outcomes. Focus on assessment of graduate learning outcomes should be on culminating experiences.*

Each student learning outcome should be assessed directly as that is the only way to determine the extent to which students are able to demonstrate knowledge and skills. Please remember to indicate the **total number of students** assessed using a given measure.

Additional Guidelines/Recommendations regarding assessment measures:

- Each learning outcome should be assessed using multiple measures, one of which must be a direct measure. Multiple measures are desirable for triangulation of results.
 - Since findings from indirect measures are self-reported, they cannot be used as sole method of assessing student learning outcomes. They should be used to augment or supplement findings from direct measures.
 - To inform improvement efforts, select measures that will identify relative strengths and weaknesses among students' (aggregate) achievement of the learning outcome. For example, by using oral presentations as a measure of students' communication skills, faculty may learn that collectively, students' skills are weaker in the areas of delivery and organization, and stronger in content and adaptation to audience. It would be much more difficult to identifying such strengths and weaknesses when using classroom discussion as a measure.
 - Consider using rubrics to score subjective assessments. Rubrics provide those doing the assessment with detailed descriptions of what is being learned and what is not, students' collective strengths and their weaknesses.
- (ii) ***Expected Target (a.k.a. Criteria for Success):*** This refers to the desired level of performance faculty want to see, based on a measure of method of assessment that represents success at achieving a given student learning outcome.

Examples of well documented Assessment Methods or Measures:

Direct Measure(s) AND Number of Students Assessed:

The student will complete junior and senior recitals which are evaluated by a panel of three faculty members using a departmentally constructed 5-pt rating scale where 5 = "excellent", 4 = "good", and 3 = "satisfactory." 85% should score satisfactory or better.

(Adapted from Undergraduate – Dept. of Music)

STEP 4: Analyze Student Achievement Data and Interpret Findings

This step focuses on documentation of results of the analysis of assessment data to indicate how students actually performed in each learning outcome based upon the assessment methods faculty selected for each outcome. The following key questions can be used to guide analysis of data:

What do the findings tell us?

It is very important to analyze assessment results in order to learn whether or not the criteria on the student learning outcomes were met. Analysis of data may provide important information regarding relationship between assessment outcomes and relevant program indicators such as course grades. Further, department

faculty may be able to find out the extent to which students change overtime and/or whether or not students meet specified program expectations.

How is assessment data analyzed?

Analyzing data should include organizing, synthesizing, interrelating, comparing, and presenting the assessment results. These processes should be based upon the nature of the assessment questions asked, the types of data that are available, as well as the needs and wants of the faculty, students and the whole university community including stakeholders. Since the outcome of data analysis lends itself to multiple interpretations, it may be critical to work in conjunction with others in looking through the analyzed data as this will lead to greater understanding often via different perspectives.

What can data be compared to?

Data can be compared to results from previous assessments, baseline data, existing criteria/standards, etc. For instance, department faculty may be interested in finding out if their majors learned or developed more as a result of participating in a course or program than students who did not participate.

Examples of documentation of Assessment Findings or Results:

Every student majoring in Mathematics will be required to take a Graduate Record Examination (GRE) or Educational Testing Service (ETS) practice exam containing specific questions to test students' comprehension of abstract and linear algebra. The test is given in the Senior Seminar Class. Four (N=4) math majors took the GRE practice exam in the 2012-2013 academic year. On the exam, thirteen questions were identified as containing content covered in Abstract Algebra or Linear Algebra. The average percent correct on these problems was 67%. This exceed the expected target.

(Adapted from Undergraduate -- Dept. Mathematics)

Twelve students (N=12) completed the CPCE during the 2051-16 AY. Three students (N=3), in the fall of 2015, had a mean score of 12.67 as compared to the national mean of 10.65. This is well above the national mean. Nine students (N=9) completed the CPCE during the spring semester with a mean score of 8.33 as compared to the national mean of 11.04. This is below the national mean. Our expected target, at or above the national mean, was met in the fall semester and was approaching during the spring semester.

(Adapted from Graduate -- Clinical Mental Health)

STEP 5: Make Adjustments based on Assessment Findings

The express purpose of assessment is to continuously improve student learning. In light of this, it is very important that assessment results are *analyzed, interpreted, reflected* upon, and most importantly, *used by faculty to make programmatic changes* in the context of continuous improvement. The assessment process cannot be complete without "closing the loop" – that is, using assessment results for program change and improvement - ***this is the most important part of the assessment process.***

The key question regarding this step: ***How can programs use assessment results?***

Assessment results can be used in a variety of ways including, but not limited to the following:

- Curriculum review and revision
 - Add course(s)
 - Revise course contents
 - Revise and/or enhance prerequisite
- or revise course sequence
 - Modify/improve instructional strategies
- Planning and Budgeting

- Accreditation requirements (regional and discipline specific)
- State requirements
- Student learning outcomes review and revision
- Program promotion/marketing
- Conference presentations
- Research and Publications
- Boost retention and graduation rates
- Recruitment/retention initiatives
- Grant applications
- Advising improvements
- Professional development opportunities

Example of documentation of Use or Planned Use of Assessment Findings for Program Improvement:

Students are close to performing at the 50th percentile. Understanding of media and process information needs to be stressed in the studios. Art history classes and expectations need to be strengthened. Design scores seem to be moving upward. Two scores were below the expected target of 50%, while the other 2 were well above. Compared to previous years of overall average scores, we are slightly improving.

(Adapted from Undergraduate – Art)

Instructors continue to adjust instruction to individual learning styles and tail listening, reading, and written assignments to give the individual student a broader knowledge of literature, pedagogy, and performance practices relevant to the student's instrument. The general level of expectation of student performance has increased. As the more highly skilled performers, who have a stronger work ethic, continue to excel and raise the standard, more of the average students work harder to become getter musicians. The department continues to work to refine the rubric-based grading for both instrumental and Vocal juries.

(Adapted from Undergraduate – Music)

As noted in the report, the program has made modifications during the previous assessment periods. Based on positive program review two years ago and the elimination of the Information Technology program under the Master of Technology, we expect many more future modifications as we determine how to best run the program. In the most recent review cycle, we received largely positive feedback and comments that our program was relatively on par with similar sized programs. We have since modified the degree plan to drop the Information Technology core course.

(Adapted from Graduate –Master of Technology-Biology)

STEP 6: Completing the template.

Complete the template for each goal of your program. There are 9 learning outcomes on each template. Delete those that you do not use. Summarize your findings. It is not necessary to attach tables or charts. If you need help, please contact the Director of Assessment for assistance.

Note: These guidelines were adapted from the Office of Academic Assessment at The University of Oklahoma.
www.ou.edu/content/assessment/assessment-process/program-student-learning-outcomes-reporting.html