Student Learning Outcomes Assessment Handbook

A Guide to Learning Outcomes Assessment at Youngstown State University

Act → Plan

Check → Do

YSU Office of Assessment
Adapted with permission from Marymount University

Help us improve!
This handbook is meant to provide guidance on assessment processes and YSU’s reporting requirements. However, it is a work in progress. If you have suggestions for improvement please email the Office of Assessment.
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Preface: Overview of Student Learning Outcomes Assessment Processes at Youngstown State University

Learning Outcomes Assessment
Learning outcomes assessment is the systematic examination of student learning during a degree program. Its primary goal is the continued improvement of academic quality for the institution. Effective learning outcomes assessment answers three questions:

- What knowledge, skills, and attitudes will successful students have acquired upon graduation?
- How well do students perform relative to these learning outcomes?
- How can programs improve to provide a stronger academic experience to students?

YSU Office of Assessment
The YSU Office of Assessment’s (OOA) mission is to coordinate and support assessment activities across campus. We support the accreditation standards of the Higher Learning Commission by assisting faculty and staff in systematic, comprehensive assessment and improvement of student learning. The Youngstown State University (YSU) Mission and 2020 Strategic Plan guide our work in building a positive culture of assessment, using of data responsibly to improve institutional practice, and using assessment to support and promote student success.

The Office of Assessment supports its mission through numerous services and programs, including workshops, consultations, professional development opportunities, assessment capacity-building mini-grant programs, a campus-wide assessment best practices event, and administration and dissemination of campus-wide student assessments (such as the National Survey of Student Engagement). More information on OOA services can be found on our website: cms.ysu.edu/assessment.

Purpose of the Assessment Handbook
The purpose of this Handbook is to assist YSU faculty and program chairs in conducting learning outcomes assessment. It is a step-by-step resource that explains the basic concepts and processes, provides examples and strategies for meeting the specific requirements, and offers approaches for making assessment a useful tool in curricular renewal. It also provides guidance on the reporting schedule and expectations for academic programs.

Learning Outcomes Assessment, Program Review, and Academic Quality
YSU has two formal mechanisms for assessing academic quality: program review and learning outcomes assessment. Learning outcomes assessment is an annual process by which faculty assess student mastery of program-level outcomes.

Learning outcomes assessment, while a central part of demonstrating program quality, does not address all aspects of an academic program. Overall program quality is evaluated through program review. Program review occurs every five years and examines programs’ overall functioning by studying administrative data, graduate outcomes, and other measures of effectiveness. In addition, program review also provides an opportunity for academic program faculty to examine learning outcomes data collected through the annual learning outcomes assessment.

This handbook addresses student learning outcomes assessment and the assessment portion of the program review process. Contact the Program Review Coordinator for further information about program review.

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Benefits of Learning Outcomes Assessment
When conducted properly, learning outcomes assessment has benefits for the entire institution. It benefits students by ensuring they master the material of their degree program and by providing academic and professional programs that are responsive to both their and society’s needs. It benefits faculty by providing the tools necessary to lead curricular renewal and development. Finally, it benefits the entire institution by giving the institution documented evidence of student learning and achievement, thereby validating the institution is faithfully meeting its mission and goals.

Outcomes Assessment and Accreditation
Since the 1990s, issues of accountability in higher education have been increasingly common concerns of federal, regional, and state regulators. Often the standards of learning are discussed during hearings on the reaffirmation of the Higher Education Act, but to date higher education has been able to argue convincingly that self-regulation is the most effective method for ensuring academic quality and accountability. To this goal, the Higher Learning Commission (HLC), YSU’s regional accrediting body, has greatly increased its emphasis on learning outcomes assessment.

While the HLC’s Criteria for Accreditation clearly emphasize the importance of assessment and evaluation, the standards are written with intentional breadth to allow individual member institution flexibility in their assessment activity. Institutions and programs are simply required to illustrate that they have defined learning outcomes, that student performance is evaluated to measure their effectiveness relative to those outcomes, and that there is a focus on ongoing, continuous improvement of curriculum and instruction to support student achievement of those learning outcomes. There is also the clear expectation that faculty participate substantially in the assessment process.

Various Roles and Expectations in Learning Outcomes Assessment at YSU
For learning outcomes assessment to be truly effective, it must be a University-wide process. At YSU, there are four primary groups directly involved with assessment activity.

- **FACULTY** develop learning outcomes, assess student performance, and provide the necessary analysis to understand learning outcomes in their programs.
- **PROGRAM CHAIRS** and/or **ASSESSMENT COORDINATORS** manage the assessment process within their programs and submit yearly assessment reports that provide evidence of the activity.
- The **OFFICE OF ASSESSMENT** coordinates and supports the overall effort and provides methodological and technical support throughout the process. This office also posts the student learning outcomes reports to the online archive annually.
- The **ASSESSMENT COUNCIL** (AC), consisting of representatives from all the colleges and several divisions in the University, reviews and advises assessment activity to ensure that program-level assessment processes are effective and to keep the university in line with requirements of regional accreditation. The AC, with assistance of faculty and staff reviewers, conducts its work by reviewing all program student learning assessment reports from which specific recommendations for improvement are generated to be addressed by departments and programs. The program student learning outcome assessment reports as well as AC findings are used to inform and provide evidence of continuous improvement.

Seven Steps of Student Learning Outcomes Assessment
There are seven steps of learning outcomes assessment: develop learning outcomes, develop curriculum maps, design outcome measures, collect data, analyze and evaluate data, share results, and reflect on process and start again. Part 1 of the Assessment Handbook is divided into sections addressing each of these steps. Each section provides a basic overview of the goals and purpose of the step, lists the specific activities for departments associated with the step, and offers suggestions and potential strategies for effectively completing the step. Part 2 of the Assessment Handbook

<table>
<thead>
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<th>Seven Steps of Learning Assessment</th>
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<td>1. Develop learning outcomes</td>
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<td>2. Develop curriculum maps</td>
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<td>3. Design outcome measures</td>
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<td>4. Collect data</td>
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<td>5. Analyze and evaluate assessment data</td>
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<td>6. Share Results</td>
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<tr>
<td>7. Reflect on process and start again</td>
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focuses on YSU’s assessment reporting requirements and provides templates and instructions for submission.

The ideas and suggestions for completing the steps are intended to provide useful information for faculty and department chairs. Since each academic department differs in terms of size, approach, and outlook, it is important to ensure that the assessment approach matches the needs of the program. Office of Assessment staff is available to discuss any thoughts or ideas to help programs build a learning outcomes assessment program that meets its needs.

**Cyclical Nature of Learning Assessment**

Since the primary goal of learning outcomes program assessment is continued improvement of the quality of education offered by Youngstown State University, the process is cyclical in nature. Assessment is an ongoing process that should grow and change as programs evolve and develop.

**Assessment Reporting Requirements at YSU**

The central reason for programs to participate in the assessment process is to ensure high quality programs that prepare students in their field of study; however, we are also obligated to provide evidence of these processes and efforts to continuously improve. This handbook outlines the core focus, that of evaluating student learning as best practice, but it is also helpful to understand how the steps relate to reporting. See Part 2, Reporting Requirements at YSU for more detail on reporting requirements and formats. Generally, this is how the assessment process and reporting relate:
<table>
<thead>
<tr>
<th>Assessment of Student Learning Steps</th>
<th>Associated Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop Learning Outcomes</td>
<td>New Program Documents (and review for currency before planning)</td>
</tr>
<tr>
<td>2. Develop Curriculum Maps</td>
<td>Assessment Plan</td>
</tr>
<tr>
<td>3. Design Outcome Measures</td>
<td>Assessment Update (yearly)</td>
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<td>4. Collect Data</td>
<td></td>
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<td>5. Analyze and Evaluate Assessment Data</td>
<td></td>
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<tr>
<td>6. Share Results</td>
<td>Assessment Cycle Reflection (part of Program Review)</td>
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PART 1
Assessment Processes
Section I: Developing Student Learning Outcomes

The first step in student learning outcomes assessment is the creation of outcomes, which reflect the core knowledge and material of the program. Most programs have previously developed SLOs, so this step of the process allows for re-examination and potential revision. The development of SLOs should capitalize on the depth of knowledge of the faculty and thereby help shape the nature and direction of the program. This section describes characteristics of strong SLOs, provides suggestions on how to develop SLOs, and discusses a process by which programs can scrutinize SLOs to ensure their strength.

Goals versus Outcomes
Goals are an important part of planning in programs and courses, but they differ from learning outcomes. Goals tend to be broader, more intangible, focused on the learning activities of the program, and/or outline on what faculty may do in the program. They differ from SLOs, as SLOs focus on what the student will take away from the program once complete.

Effective Student Learning Outcomes
SLOs are statements that specify what students will know or be able to do as a result of completing their program. Effective SLOs are usually expressed as knowledge, skills, or abilities that students will possess upon successful completion of a program. They provide guidance for faculty regarding content, instruction, and evaluation, and serve as the basis for ensuring program effectiveness. Because we evaluate student performance in terms of specific actions, the strongest learning outcomes are measurable and observable.

Strategies for Developing Effective Student Learning Outcomes
Prior to beginning the program’s learning outcomes assessment activity, the chair and faculty may wish to meet with the Director of Assessment. This person can discuss the entire process, explain potential university resources, and answer questions on the process.

To start the process, program faculty may want to compile a list of the key knowledge skills and attitudes that students acquire during the program. The chair may call a meeting of faculty or seek suggestions via e-mail. “Tool 1: Key Questions to Consider When Drafting SLOs” may be useful to generate the list of core components.

After identifying the knowledge, skills and abilities that the program faculty want to assess, actual SLOs are drafted. Drafting outcomes can be a long process requiring multiple versions to capture the true essence of core ideas. One way to help simplify the process is use an opening such as “Upon successful completion of this program, students will be able to...” and then focus on the actual essence of the outcome. The goal is to develop a comprehensive set of learning outcomes and examine them on a regular cycle.

Checklist of Needed Activity for Developing SLOs:
- A comprehensive but manageable number of SLOs (typically between 3-8 depending on program length/level)
- Evidence of faculty participation in developing learning outcomes
- Verification that outcomes are: appropriate for course or program level, important, observable, and measurable.

Tool 1: Key Questions to Consider When Drafting SLOs
- What is the most essential knowledge students need to have acquired upon successful completion of the program?
- Are there specific skills or abilities students need? What are they?
- How does the program attempt to shape students’ attitudes or views regarding the discipline or profession?
- How do these skills, abilities, or habits of mind relate to the university’s mission and core competencies?
Bloom’s Taxonomy
In developing SLOs, it is helpful to consider the level of learning expected of students completing a postsecondary program. In academic programs, outcomes are usually expected to be at higher levels, so it is important that learning outcomes accurately reflect the level of expectation.

SLOs are often organized around Bloom’s taxonomy (Bloom, 1956), which is a classification of different ways of learning, from lower- to higher-order levels. In an academic setting, we most often write learning outcomes in the cognitive (knowledge) domain. Bloom also developed taxonomies around psychomotor (physical skills) and affective (attitudes) domains, which may be of use in some programs. These taxonomies are organized learning around the less sophisticated to the more sophisticated. Appendix 1A outlines these levels of learning using a revised Bloom’s Taxonomy (Anderson and Krathwohl, 2001), and provides examples of verbs that can help faculty articulate and frame outcomes at the appropriate level of sophistication for their program.

Selecting the Right Verb
Given that SLOs focus on observable and measurable actions performed by students, the selection of an action verb for each outcome is crucial. Determining the best verb to use in a learning outcome can be challenging because of its need to accurately reflect the knowledge, skills and abilities being studied. “Tool 2: Common learning outcome action verbs” provides a brief list of verbs that are used in writing learning outcomes at the collegiate level.

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Certain verbs are unclear and subject to different interpretations in terms of what action they are specifying. Verbs/verb phrases such as “know”, “become aware of”, “appreciate”, “learn”, “understand”, and “become familiar with” should be avoided; they frequently denote behavior that is not easily observed or measured.

Strengthening Weak SLOs
The process for strengthening SLOs re-examines the original characteristics used of strong outcomes. By asking the three questions in “Tool 3: Evaluating learning outcomes”, weaknesses in learning outcomes emerge.

Revising SLOs
The process of writing SLOs is not simple. Determining the outcomes a program wants to examine can pose the first challenge. In addition, drafting the outcome often takes several revisions to develop a strong one that reflects the intentions of the faculty. However, the effort put into drafting strong outcomes will be returned through an easier time developing measures, collecting data, analyzing the results, and ultimately making recommendations for improvement. Strong outcomes will help to focus the entire process and allow for the most useful results from the assessment process.

In addition, strong outcomes communicate to students what they will gain from your academic program. Program-level learning outcomes are included in the program description in the university catalog and can inform students what skills, knowledge, and habits of mind they are likely to acquire by selecting a particular academic program. Archived examples of YSU program’s SLOs can be found on the Office of Assessment’s website.
EXAMPLE: Making a learning outcome stronger

The following illustration shows how the questions in Tool 3: Evaluating learning outcomes can be used to strengthen weaker learning outcomes. This example is carried throughout the Assessment Handbook to show how to make the whole process easier.

The original learning outcome reads:

- **Upon successful completion of this program, students will be** exposed to case studies documenting the use of ethical reasoning in daily decisions.

We evaluate this learning outcome by asking the questions found in Tool 3: Evaluating learning outcomes.

- “Is the action done by the students?” **No**, the action is not done by students, but by the faculty who present the case studies.
- “Is the specified action observable?” **Yes**, the action is observable, as students could be observed as they are exposed to the case studies.
- “Can the specified action be measured?” **Yes**, the action can be measured by counting the number of case studies presented to students.

The revised learning outcome is:

- **Upon successful completion of this program, students will be able to** apply ethical reasoning in daily decisions.

By asking the same three questions as before we can evaluate the learning outcome.

- “Is the action done by the students?” **Yes**, the action is done by students.
- “Is the specified action observable?” **No**, the action is difficult to directly observe.
- “Can the specified action be measured?” **Yes**, it can be measured indirectly by asking students to comment on the extent to which they apply ethical reasoning in their daily decisions.

The department revises the learning outcome to:

- **Upon successful completion of this program, students will be able to** appreciate the value of ethical reasoning in their daily decisions.

Again, we evaluate the learning outcome by using the same three questions.

- “Is the action done by the students?” **Yes**, the action is done by students.
- “Is the specified action observable?” **Yes**, the action is somewhat observable by viewing the student’s actions/behaviors.
- “Can the specified action be measured?” **Yes and No. Yes**, because it may be measured indirectly by asking students to comment on the extent to which they appreciate the value of ethical reasoning in their daily life. **No**, because it is challenging to measure directly because appreciation is a concept which is difficult to define or operationalize.

Finally, the department develops the learning outcome:

- **Upon successful completion of this program, students will be able to** apply ethical reasoning in discussing an ethical issue.

By revisiting the three questions, the strengths of this outcome emerge.

- “Is the action done by the students?” **Yes**, the action is done by students.
- “Is the specified action observable?” **Yes**, the action is observable. The student can be given an assignment in which they are required to apply ethical reasoning.
- “Can the specified action be measured?” **Yes**, it is measurable. The expectations can be defined and the student’s performance measured against those standards.
Section II: Designing Curriculum Maps

The curriculum map is a tool that can help build a curriculum, diagnose student learning, and improve programs. Sharing it with part-time faculty and with students can enhance understanding of the degree program and offers an important roadmap for student learning. It can be updated periodically and added to the departmental website and/or complement updated curriculum sheets. It is vital to understand where students are introduced to concepts defined in a program’s SLOs. Mapping learning outcomes to program courses is the first step in understanding where students are introduced to the material they need to master. See “Tool 1: Sample Curriculum Map” and the example below as guides to develop a curriculum map. Appendix IIA includes a template for creating curriculum maps.

Examining Concept Reinforcement

Often programs will discover that students are introduced to the concept in the curriculum, but course assignments and planned experiences are not sufficient to help students master those concepts. This may lead to considering modifications in assignments, readings, or general teaching approaches to reinforce concepts with students. A program may also discover that a new course needs to be created to sufficiently address a learning outcome.

Examining Course Sequencing

Sometimes faculty will discover that the course provides sufficient support for the student to master the material, but course sequencing should be adjusted so that students are introduced to concepts that build on and complement each other. The student learning assessment process can be used as an audit of the programmatic educational experience.

Tool 1: Sample Curriculum Map

<table>
<thead>
<tr>
<th>Courses</th>
<th>Learning Outcome 1</th>
<th>Learning Outcome 2</th>
<th>Learning Outcome 3</th>
<th>Learning Outcome 4</th>
<th>Learning Outcome X</th>
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<tr>
<td>15XX</td>
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While is acceptable (and sufficient) to just place "X"s in the boxes on the template to show where a learning outcome is covered, we encourage you to consider using use a key that indicates the level of learning being asked of the student. See below for examples:

- Bloom’s Hierarchy: (adopted from the Revised Bloom’s Taxonomy) the template uses initials to reflect the level of student learning in the course: R=Remember/Understand; A=Apply/Analyze; E=Evaluate/Create
- Another common breakdown is I=Introduce; E=Emphasize; R=Reinforce

Archived examples of YSU programs’ curriculum maps can be found on the Office of Assessment’s website. For more information here is a helpful web tutorial series on creating and using curriculum maps for assessment of student learning.

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Section III: Designing Outcome Measures

After developing learning outcomes and a curriculum map, the next step in the assessment process is to select outcome measures. While learning outcomes describe the knowledge, skills and abilities that students should possess after instruction (or completion of the program), outcome measures are the specific tools and methods that generate data and information about students’ performance relative to learning outcomes.

There are two types of outcome measures: direct measures and indirect measures. Each serves an important function in assessment, and when used together they provide a richer perspective on student learning by providing direct evidence and context to understand student performance.

- **Direct measures** are methods for assessing actual samples of student work to provide evidence of student performance relative to the learning outcomes.
- **Indirect measures** are methods for assessing secondary information on student learning that do not rely on actual samples of student work.
- **Proxy measures** are data that can corroborate the data found in direct and indirect measures, but do not directly provide evidence of student learning. They should only be used in combination with other data.

Each type of outcome measure serves a particular purpose. Direct measures assess the extent to which students’ work meets the learning outcome performance criteria. Indirect measures compliment direct measures by providing supportive evidence, information, and student perspective. Proxy evidence can help “triangulate” and substantiate other forms of evidence. Proxy evidence should only be used to support other direct/indirect measures; proxy data alone does not provide sufficient evidence of learning. Together they provide a richer perspective on student learning by providing evidence and context to understand student performance. It is suggested that each SLO have at least two measures.

**Outcome Measures Should Meet Three Criteria**
Regardless of the type of measure used, strong measures share three basic qualities:

1. Provide sufficient data and information to measure the learning outcome
2. Are not overly burdensome for departments to collect
3. Have established performance criteria and expected results to help guide the analyses

**Selecting Direct Measures**
There are many issues to consider when selecting direct measures of learning. Programs should be creative in determining the most useful way to measure student performance, but at the same time ensure that the methods allow for meaning from interpretation and results. "**Tool 1: Sample Direct Measures,**" provides a list of some of the more common methods within higher education and can help foster ideas for developing measures.

**Tool 1: Sample Direct Measures**
- Capstone projects
- Student performances
- Thesis evaluation
- Course-embedded assessments
- Pre-test/post-test evaluation
- Student portfolio evaluation

**Course-embedded assessments** are direct measures which use student work in specific courses to assess student
learning. Students are already motivated to do their best on these assessments because they are conventionally graded on them. For example, if one learning outcome requires students to synthesize the literature on a topic in the field; student research papers may be evaluated using a rubric to assess how well they meet the learning outcome. Many classroom assignments can be used for course-embedded assessment as long as they assess a program’s student learning outcome. Course-embedded assessment measures are often selected because they take place in the classroom, take advantage of student motivation to do well, and directly assess what is taught in the classroom. The National Institute for Learning Outcomes Assessment created an online Assignment Library that can be used to find ideas for potential course-embedded assessments.

**Examinations:** Many course-level student learning outcomes (SLOs) can be assessed by examinations given within the course. In some cases the outcomes measured by the examinations will be identical to the program’s student learning outcomes and, the exam questions will assess both course and program outcomes. With some creativity, exam questions can also be written to cover broader program SLOs without losing their validity for course grading. In programs without capstone courses, it might be possible to write a coordinated set of exam questions that provide a fuller picture of student learning when administered in exams across a series of courses.

**Analysis of course papers:** Course papers can be used as measures for student learning outcomes. Because students create these papers for a grade, they are motivated to do their best and these papers may reflect the students’ best work. This process typically requires development of a different rubric that focuses on program learning outcomes. Faculty committees can also read these same papers to assess the attainment of program SLOs. Ideally, this second reading should be done by someone other than the instructor or by others along with the instructor, as the purpose for the assessment is different than grading. Scoring rubrics for the papers, based on the relevant learning outcomes should be developed and shared with faculty raters prior to rating to promote interrater reliability.

**ROAD (Repository of Assessment Documents) Project:** At YSU, the ROAD project is an example of course paper analysis designed to assess student writing and critical thinking. Students are required to upload one paper from Writing 2 (ENGL 1551) and one paper from an upper division course. Randomly selected papers are then evaluated using a rubric developed by a committee of YSU faculty; the evaluation of the papers is administered by the coordinator of the Writing Center. Data from completed evaluations may be used to compare program students with the university results, or interested departments may also utilize the existing archive to evaluate upper-division writing in their program. Contact the General Education Coordinator for more information.

http://course1.winona.edu/shatfield/air/rubrics.htm

**Analysis of course projects, presentations, and artifacts:** Products other than papers can also be assessed for attainment of program learning outcomes. For example, if students are required to give oral presentations, other faculty and even area professionals can be invited to these presentations and can serve as outside evaluators using the same rubric as other raters.

**Student performances:** In some areas, such as teaching, counseling, or art, analysis of student classroom teaching, mock counseling sessions or creative performances can provide useful measures of student learning. A standardized evaluation form is necessary to ensure consistency in assessment. One advantage of using performances is that they can be videotaped for later analysis.

**Cross course measures** are direct measures of student work across the program. Cross course measures examine students’ work that incorporates multiple dimensions of knowledge, skills and abilities developed throughout the entire program. The most common types of cross course measures are capstone course papers and projects, and student portfolios.

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Capstone courses: Capstone courses provide an ideal opportunity to measure student learning, because this is where students are most likely to exhibit their cumulative understanding and competence in the discipline. One of the purposes of capstone courses is to provide an opportunity for students to "put it together," which typically requires students to integrate the knowledge, skills and abilities found in the program’s learning outcomes.

Student portfolios: Compilations of students’ work in their major can provide a rich and well-rounded view of student learning. The program usually specifies the work that goes into the portfolio or allows students to select examples based on established guidelines. By compiling a range of student work, portfolios can be used as the measure for more than one learning outcome. Portfolios can also be valuable for the student by providing a reflection of their skills and abilities. Portfolios do require strong, well-constructed rubrics to make the process of extracting assessment data manageable. See the Rubric Toolbox in the appendix for information on constructing a rubric.

Standardized and certification exams: In some disciplines, national standardized or certification exams exist which can be used as measures if they reflect the program’s learning outcomes. The examination usually cuts across the content of specific courses and reflects the externally valued knowledge, skills and abilities of a program.

Internship supervisor evaluations: If the program has a number of students who are doing relevant internships or other work-based learning, standard evaluations by supervisors using a rubric designed to measure a particular learning outcome across the duration of the internship may provide data on attainment of learning outcomes. In addition, when programs exercise control over the content of internships, those settings can serve as capstone experiences where students can demonstrate their knowledge skills and abilities.

Selecting Indirect Measures
Like selecting direct measures, there are many issues to consider when selecting indirect measures of learning. Programs should be creative in determining the most useful way to measure student performance, but at the same time ensure that the methods allow for meaning from interpretation and results. "Tool 2: Sample Indirect Measures" provides a list of some of the more common methods within higher education and can help cultivate ideas for developing indirect measures.

The Office of Assessment conducts some campus-wide surveys that may be analyzed as indirect measures of student learning. The National Survey of Student Engagement (NSSE) asks students about their educational experiences, perceived learning gains, level of engagement with faculty and in their program. The Noel Levitz Survey of Student Satisfaction asks students about the importance of, and their satisfaction with, different aspects of their educational and co-curricular experience. These data may be disaggregated at the program level, and depending on the number of responses.

While University surveys may provide some insights into students learning experience, they sometimes lack the specificity needed by programs in their assessment activity. Accordingly the programs may need to conduct their own primary research to address the issues. These methods may be quantitative or qualitative in nature, but should still address the key issues of strong measures.

Employer Survey: If the program is preparing students for a particular job or career field, employers’ opinions of...
students’ on-the-job performance can be an effective outcome measure. However, it is important to survey those who have first-hand knowledge of student work.

**Internship Supervisor Survey:** Internship supervisors may provide general feedback to programs regarding the overall performance of a group of students during the internship providing indirect evidence of attainment of learning outcomes. This should not be confused with internship supervisors’ evaluation of student performance on specific learning outcomes.

**Focus Groups:** Focus Groups provide in-depth, qualitative interviews with a small number of carefully selected people who are thought to represent the population of interest (students in the program). For program assessment, students are brought together to discuss their perceptions of how well they achieved the program’s learning outcomes.

**Exit Interviews:** Graduating students are interviewed individually to obtain feedback on the program. Data obtained can address strengths and weaknesses of the program and/or assess relevant concepts, theories or skills related to the program’s learning outcomes.

**Area Expert or Advisory Committee Comments:** Comments made by area experts can be useful in gaining an overall understanding of how students will be judged in a given field. This differs from having experts use the same rubric faculty raters use, and instead focuses on their opinion of the quality of students’ work and the program in general. This should not be considered a direct outcome measure but it can serve as a valuable indirect measure.

**Establishing Performance Criteria**
When interpreting assessment results, it is useful to set a performance criterion that specifies the acceptable level of student work or response. For each learning outcome, the program should ask “What is an acceptable performance criterion for this learning outcome?” This performance criterion may be a passing score on an exam, a rubric rating of “meets program standards” on a student paper or another indicator of the quality of student work.

**Establishing Expected Results**
By setting expected results for the percentage of students meeting or exceeding performance criteria before data collection begins, the program can gauge its effectiveness in helping students meet the learning outcomes. For example: Seventy-five percent of students met the performance criterion set by the department for the outcome measure on ethical reasoning. This can be compared to the expected result of 85% meeting the performance criterion which reveals an area for improvement.

**Evaluating Measures**
It is possible to evaluate outcome measures by asking the three questions found in "Tool 3: Questions for evaluating outcome measures." If faculty and chairs are able to answer “yes” to all of three questions, it is likely that a strong set of measures has been developed.

---

**Useful Links:**

- [Overview of the Process of Conducting a Focus Group (Center for the Study of Student Life, The Ohio State University)](link)
- [NIOLA Assignment Library](link)
- [Why Can’t I Just Use Grades?](link)
- Susan Hatfield's [Rubrics](link) and [Assessment Resources](link)
EXAMPLE: Improving Outcome Measures

The following illustration shows how the questions in Tool 3: Questions for evaluating outcome measure can be used to evaluate outcome measures. This example builds on the learning outcome developed in section one.

- **Upon successful completion of this program, students will be able to** apply ethical reasoning in discussing an ethical issue.

A department decides to use the outcome measure:

**Two questions from the Graduating Student Survey:**

- For each of the following skills, please indicate how well you believe your education prepared you to:
  - Determine the most ethically appropriate response to a situation.
  - Understand the major ethical dilemmas in your field.

  Students respond to these questions by indicating their choice on a scale ranging from “Poor” to “Excellent.”

We will evaluate this outcome measure by asking the questions found in Tool 3: Questions for evaluating outcome measures.

- “Does the measure provide sufficient data and information to analyze the learning outcome?” Yes and No. Yes, because this evidence is the student’s opinion. No, because it is an indirect measure and indirect measures are not sufficient by themselves to analyze learning outcomes. Note: While indirect measures are valid and appropriate, it is important to have at least one direct measure of student learning. This measure could work as an excellent second source of data on the learning outcome.
- “Does the measure require a reasonable amount of work to collect?” Yes, the amount of work required is reasonable.
- “Does the measure establish performance criteria to help guide the analysis?” No, it does not provide a performance criterion to help guide the analysis though one could be developed regarding the student opinion.

The department revises the outcome measure to:

*A paper taken from student portfolios where the student discusses an ethical issue. The papers are rated by each faculty member on a specific rubric designed to measure the application of ethical reasoning.*

We evaluate this outcome measured by asking the same three questions as before:

- “Does the measure provide sufficient data and information to analyze the learning outcome?” Yes, the measure directly measures students’ application of ethical reasoning.
- “Does the measure require a reasonable amount of work to collect?” No, the faculty may object to having to read all the student papers and they may deem this measure too much work.
- “Does the measure establish performance criteria to help guide the analysis?” No, there is no specific performance criterion established.

The department revises the outcome measure to:

*Student papers that discuss ethical issues are extracted from student portfolios. Each paper is rated by two faculty members on a rubric designed to measure the application of ethical reasoning. The mid-point of the rubric (a rating of 3) provides a description of the performance criterion required by the program. The mid-point states that the paper, “Identifies the key stakeholders, states one ethical approach in their discussion, discusses both the benefits and risks associated with the ethical issue, shows consideration of key stakeholder interests, uses at least one normative principle in discussing the issue.”*

By revisiting the three questions, the strengths of this outcome emerge.

- “Does the measure provide sufficient data and information to analyze the learning outcome?” Yes, the measure directly measures student’s ability to apply ethical reasoning.
- “Does the measure require a reasonable amount of work to collect?” Yes, it is less burdensome on the faculty to collect the data than the previous outcome measure.
- “Does the measure establish performance criteria to help guide the analysis?” Yes, it provides a performance criterion to help guide the analysis.
Data collection is the next step in the assessment process. This section will cover the process of collecting student work and indirect measures, rating work, and storing data. The collection process may seem like a daunting task, but with planning, it can move more smoothly and provide quality data and information about the programs learning outcomes.

The data collection process consists of three basic steps:
1. gathering necessary student work and other information
2. evaluating the results
3. storing the data electronically

The Gathering, Evaluating, and Storing (GES) process is used for both direct and indirect measures; however some of the specific steps will vary. The key to simplifying the data collection process is planning. “Tool 1: Questions to Ask in Planning Data Collection” provides a number of questions to think about before gathering data.

Step 1: Gathering
The process of gathering materials for direct measures varies greatly depending on the measures used. For course-embedded measures or capstone experiences, it is necessary to coordinate with the faculty member teaching the course to ensure the student work is collected and forwarded for assessment. If a portfolio is being used, it will be necessary to determine who is responsible for putting the portfolio together. It is also important to ensure that data collected reflects all modes of program delivery--for example, departments with off-site programs, consortium programs, or distance education programs should ensure that the data collected reflects the population of students in their program.

When using indirect measures, the gathering phase consists of conducting the necessary research (survey, focus group, or other measures). Indirect measures based on secondary analysis of material (e.g. course syllabi) need these materials to be compiled. Programs should set a schedule that outlines the materials needed to simplify follow up and ensure all student work is collected.

<table>
<thead>
<tr>
<th>Tool 1: Questions to ask in Planning Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Measures</strong></td>
</tr>
<tr>
<td>Where is the student work coming from?</td>
</tr>
<tr>
<td>Does the student work represent all major populations in the program (e.g., distance education students)?</td>
</tr>
<tr>
<td>How will the student work be organized and stored for evaluation?</td>
</tr>
<tr>
<td>When will it be evaluated?</td>
</tr>
<tr>
<td>Who will be responsible for evaluating?</td>
</tr>
<tr>
<td>How will the performance data be stored? How will it be secured?</td>
</tr>
<tr>
<td>How will examples of student work be stored? Paper? Electronically?</td>
</tr>
<tr>
<td>Are there FERPA issues to consider?</td>
</tr>
</tbody>
</table>
**Step 2: Evaluating**

The evaluation phase for direct measures includes the examination of student’s work by faculty to determine the level to which it meets the learning outcome. Evaluation, and supporting tools, can take multiple forms—they can be as simple as a checklist of criteria or expectations to as complex as a multi-level, multi-dimensional rubric. Because assessment looks to evaluate specific aspects of the student work, rubrics are often used as guidelines in the process. We will discuss the elements of an effective rubric.

Effective rubrics, standardized evaluation forms used to assess student work toward meeting learning outcomes, can be developed in many different ways to assist the evaluation process. They can describe qualitative as well as quantitative differences; and are often used to assess assignments, projects, portfolios, term papers, internships, essay tests, and performances. They allow multiple raters to assess student work effectively by increasing the consistency of ratings and decreasing the time required for assessment. The development of rubrics is covered in the Rubric Toolbox.

Regardless of the type or style of rubric used, there are a few general principles to ensure they are effective. “Tool 2: Steps for Using a Rubric to Evaluate Student Work” outlines the basic process of using rubrics.

The key to achieving consistency between raters is conducting a “norming” session to allow faculty raters to reach consensus on the levels of student work at each level of the performance criterion. “Tool 3: Steps to “norming” a rubric” provides the basic process of a norming session.

For indirect measures that the program is conducting, the evaluation phase consists of the compiling of the results into a form that are meaningful to those doing the assessment. For survey data, this will generally include entering the data into a data set for analysis and generating the descriptive statistics. For more qualitative work such as focus groups, this part of the process maybe the extraction of any themes or ideas.

**Step 3: Storing**

There are two different storage issues which departments need to address. The first is an electronic storage system of all the data that are compiled from students’ work and results from indirect measures. Whatever methods are used, it is generally a good idea to use a department network (shared) drive to store the data. This makes submitting and accessing the data convenient as well as ensures that the data are backed up by YSU’s Computer Center.

For tracking direct (and some indirect) measures programs may create an electronic database/Excel spreadsheet to store all of their assessment data for later analysis. The database will typically list all students and their performance on the measure. “Tool 4: Example of a program database” illustrates how to compile the database of assessment data.

---

**Tool 2: Steps for Using a Rubric to Evaluate Student Work**

- Review the rubric with all raters to ensure it is consistently understood.
- Use the descriptors in each performance level to guide ratings.
- Assign the rating that best represents the student’s work.

**Tool 3: Steps to “norming” a rubric**

- Explain to the raters how to use the rubric.
- Provide a few samples of student work.
- Discuss each sample and determine how raters determine scores.
- Reach a general consensus on each level of the performance criterion.

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Revised September 2016
Because this database will have individual student information, it is very important to ensure it remains secure and that only faculty and staff involved in the assessment activity have access to the contents. Many times, however, indirect measures may not be trackable by specific students. For these types of measures a descriptive report of the results will be useful as the program reviews the direct measures.

The second storage issue facing the department revolves around copies of student work and responses to questionnaires. It is generally advisable to retain copies of or access to the direct measures until the report feedback has been returned. It is best practice to not include students’ names or student id numbers on copies of student work or questionnaires.

Additionally, it is recommended that samples of students’ work be stored to document the assessment process. Generally for each direct measure, an example at each level of the performance criterion should be saved. Electronic copies of student work can reduce space required for storage and allow the original work to be returned to the students. These documents can be scanned and stored as PDF files to help limit the amount of storage space necessary. Best practices suggest that these records should be archived for 10 years to ensure that any records for accreditation would be available if requested.

Student Awareness of Assessment Activity and Privacy Issues

Students should be aware that their work may be used in the assessment purposes. “Tool 6: Syllabi statement regarding student work in assessment” provides an example of a statement that departments may want to use. By incorporating the statement on select or all program courses the department informs students about its assessment work.

As noted in the section about keeping data work secure, student work is protected by The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99). To comply with FERPA regulations, student work should either be maintained in a secure system with access limited to those involved in assessment or should have all personally identifiable information removed. Even without a name, some student work is considered identifiable if it contains sufficient information about the student to enable the author to be identified.

Strategies for Collecting Data

By reviewing the original planning questions in “Tool 1: Questions to Ask in Planning Data Collection” before collecting data, programs can avoid many potential roadblocks in the data collection process. The following example lists three common roadblocks that can occur during this process and illustrates an effective plan for data collection.

---

### Tool 4: Example of a Program Database

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Year</th>
<th>LO 1: Portfolio Rating</th>
<th>LO1: Senior Exit Interview</th>
<th>LO2: Paper Rating from 300-level course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allan</td>
<td>Jane</td>
<td>Senior</td>
<td>4</td>
<td>More writing needed</td>
<td>4</td>
</tr>
<tr>
<td>Miller</td>
<td>Larry</td>
<td>Senior</td>
<td>5</td>
<td>Not Present</td>
<td>5</td>
</tr>
<tr>
<td>Smith</td>
<td>Bob</td>
<td>Senior</td>
<td>3</td>
<td>More writing needed</td>
<td>3</td>
</tr>
<tr>
<td>Bloom</td>
<td>Desmond</td>
<td>Junior</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Jones</td>
<td>Robin</td>
<td>Junior</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Smith</td>
<td>Troy</td>
<td>Junior</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Revised September 2016
EXAMPLE: Collecting Assessment Data from Direct Measures Effectively

There are three common roadblocks that can stifle the collection of assessment data.

1. Data are not collected for stated outcome measures
2. Copies of student work are collected but cannot be found at the time of evaluation
3. There is no clear system for the evaluation of student work resulting in no data for analysis

The following example illustrates how to avoid these roadblocks and plan for effective data collection. By answering the questions in Tool 1: Questions to ask in planning data collection before data is to be collected, an effective plan can be developed. The example uses the learning outcome and outcome measures found in previous sections. The learning outcome chosen by the program is:

- **Upon successful completion of this program, students will be able to** apply ethical reasoning in discussing an ethical issue.

It will be measured by a direct measure:

**Direct Measure:** A paper taken from student portfolios where the student discusses an ethical issue

The first common roadblock, data are not collected, can be avoided by identifying where the student work is coming from. The program chair decides that the instructor of the capstone course will collect copies of student work from the student electronic portfolios upon submission. This course is offered in both the fall and spring semesters and accordingly student papers will be collected by the instructor during both semesters. The instructor will remove the students’ names from and affix unique numeric assessment codes to the papers.

The second roadblock, copies of student work cannot be found for evaluation, is discussed by the faculty and a system for organizing and evaluating the student work is developed. The capstone course instructor will submit electronic copies of the students’ papers to program chair who will store them on the department’s secure network drive. This will ensure the data are available for evaluation.

The third common roadblock, no clear system for evaluating student work, is avoided by developing a schedule for evaluation of student work. The faculty agree to serve as evaluators on a rotating schedule to divide the work equally. The instructor of the capstone course will not evaluate the students’ papers for assessment purposes to avoid instructor bias. Each paper will be reviewed by two faculty members using the rubric developed for this outcome measure. If the reviewers’ ratings do not agree, a third faculty member will review the paper and assign a final rating. Ratings will be recorded on a 1 to 5 scale.

Ratings of student work will be stored in an Excel database located on the department’s secure network drive and maintained by the program chair. Examples of student work for each level of student performance will be stored as PDF files on the network drive and maintained by the program chair. By keeping the data on the network drive, the data are automatically backed up in case of computer failure.
EXAMPLE: Collecting Assessment Data from Indirect Measures Effectively

There are three common roadblocks that can stifle the collection of assessment data.

1. Data are not collected for stated outcome measures
2. Copies of student work are collected but cannot be found at the time of evaluation
3. There is no clear system for the evaluation of student work resulting in no data for analysis

The following example illustrates how to avoid these roadblocks and plan for effective data collection. By answering the questions in Tool 1 before data is to be collected an effective plan can be developed. The example uses the learning outcome and outcome measures found in previous sections. The learning outcome chosen by the program is:

- **Upon successful completion of this program, students will be able to** apply ethical reasoning in discussing an ethical issue.

It will be measured by an indirect measure:

**Indirect Measure:** Two questions from the Graduating Student Survey (GSS)

**For each of the following skills, please indicate how well you believe your education prepared you to:**
- Determine the most ethically appropriate response to a situation.
- Understand the major ethical dilemmas in your field.

*Students respond to these questions by indicating their choice on a scale ranging from “Poor” to “Excellent”*

The first common roadblock, data are not collected, can be avoided by identifying where the student work is coming from. For this indirect measure, GSS data will be obtained from the Office of Planning and Institutional Effectiveness. Because the data are collected across the institution annually, the first roadblock is avoided.

The second roadblock, copies of student work cannot be found for evaluation is discussed by the faculty and a system for obtaining the data on the program’s students is developed. The program chair volunteers to request the survey data for students in the program. This requires a special extraction of the responses for the program’s graduating students from the main survey database.

The third common roadblock, no clear system for evaluating student work, is avoided by developing a schedule for evaluation of student work. The data will be analyzed by a designated faculty member to determine the percentage of students responding at each level of the measurement scale for each question. The results of this analysis will be stored in the secure Excel database on the programs’ secure network drive. This avoids roadblocks two and three in this example.
Section V: Analyzing Assessment Data

Analysis of data is the next step in the assessment process. Analysis is a process that provides better understanding of data and allows inferences to be made. It summarizes the data, enhances the value of information gathered and provides direction for decisions regarding program improvement. While data analysis can be relatively complex, for the purpose of assessment it is usually basic.

This section discusses the core elements of data analysis and provides strategies for and examples of analysis. The underlying theme of this section is to illustrate how to link data to the learning outcomes and provide a basis for using data to improve student learning.

Before Analyzing Data

Two important steps should be completed before analyzing data. The first step is to review the data visually. Reviewing data has two benefits: It allows for the identification of outliers and possible mistakes, and it enables basic patterns or trends to emerge. For example, it may be clear that all students who took a particular class had difficulty with a particular outcome.

The second step of the process is to determine the appropriate method for analyzing the data. This can range from simply counting the number of successful students to higher powered statistical analyses. The two key factors are first to make sure the analysis method fits the data; and second, to ensure that method aligns with the program’s needs. There are two types of data used in assessment each with different methods of analysis.

Categorical data are based on groupings or categories for the evaluation of student performance. For example a simple passed/failed score is categorical because there are two groups into which students can be placed. Often rubrics generate categorical data by using a scale of “exceeding expectations,” “meeting expectation,” and “failing to meet expectations”.

Numerical data are based on scales that reflect student performance. Tests which are scored based on the percentage of questions answered correctly generate numeric data.

Direct measures can generate either categorical or numerical data. Student’s papers rated on an assessment rubric may be categorized as “meeting standard” or “failing to meet standard”. However the papers may be scored on a numerical scale indicating the overall quality of the paper with respect to the learning outcome.

Indirect measures can also generate either categorical or numerical data. By asking students on a questionnaire: “Did you have sufficient writing in the program?” a program would compile categorical data based on those saying “yes” and those saying “no.” However, by asking students to indicate how strongly they agree with a statement like “there was sufficient writing required in my program”, numeric data could be generated by applying an agreement scale. (5 – Strongly Agree, 4 – Agree, 3 – Neither, 2 – Disagree, 1 – Strongly Disagree).

Analyzing Assessment Data

Once the data have been reviewed and the type determined, the process of analyzing data follows. “Tool 1: Methods For Analyzing Data” provides a brief overview of the basic methods used to analyze assessment data. Assessment’s focus on student achievement of learning outcomes typically requires the determination of counts and percentages. Together they show clearly the number of students involved in the activity and the rate of successful display of the outcome. All data, regardless of type can be analyzed using counts and percentages.
Numeric data has the additional benefit of being able to be analyzed using descriptive statistics. Mean, median, and mode provide useful information to interpret data by allowing for easier comparison between groups and tests for significant differences.

The Impact of Dispersion

By examining how data are distributed around measures of central tendency, particularly the mean and median, a richer understanding of the data emerges. The standard deviation represents the average deviation of scores about the mean. Small standard deviations in student performance indicate that performance levels varied little across students in the sample. Large standard deviations indicate a greater variability in levels of student performance. Standard deviations are commonly reported with the mean. Percentiles represent the percentage of a distribution of scores that are at or below a specified value. They are calculated by the formula \( \text{Percentile} = \frac{S_b}{n} \times 100 \), where \( S_b \) is the number of scores below the score of interest, and \( n \) is the total number of scores. They are often reported with the median which by definition is the 50th percentile. For example: a median score of 75 on a final exam would be the 50th percentile indicating 50% of students scored above 75 and 50% scored below. By examining the 25th, 50th, and 75th percentiles one can gain a sense of a student’s performance relative to the group.

Missing Data and Valid Responses

Working with assessment data, there are many instances when data will not be available for every student. As a general rule, missing data should be excluded from calculations of percentages and descriptive statistics. If a program has ten (10) students, and eight (8) submit a needed paper for the assessment of an outcome; then eight (8) submitters become the basis of the analysis. Extending the example, if six (6) of the submitted papers meet or exceed the performance criterion, then a program would indicate 75% of students submitting papers showed mastery of the outcome rather than 60% of all students in the program.

Analyzing Data in Small Programs

In programs with a small number of majors, or a small sample of data, it may be appropriate to aggregate multiple collections of data for analysis in order to be able to use findings for program improvements. For example, data may be collected from a capstone yearly to evaluate ethical reasoning, but would only be analyzed once in an assessment cycle using three years worth of data.

Presenting Analysis

Tables and graphs are useful in presenting analysis because they focus attention to specific results. Tables are useful for reporting multiple percentages and frequencies, comparison of student performance with stated performance criteria and some descriptive statistics. They provide an ordered way for readers to see results quickly for each outcome measure without having to search through text to find a particular result. Graphs can further enhance the visual impact of assessment. Graphical representations of results show differences in variables, which makes graphs highly effective in showcasing assessment results.

When sharing the results of program assessment, it may be useful to report each learning outcome and outcome measure paired with the corresponding results of the analyses, which joins the multiple outcome measures (direct and indirect) for each learning outcome. Next, compare the results with the specified performance criterion and discuss the implications of the data as they relate to the program. Both strengths and areas for improvement are discussed, because showcasing program success is just as important as identifying areas for improvement, when it comes to making data based decisions about the program.
Tool 2: Example of Table of Counts and Percentages

<table>
<thead>
<tr>
<th></th>
<th># of students evaluated</th>
<th>% of students</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Below</td>
<td>Meeting</td>
<td>Above Performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance</td>
<td>Performance</td>
<td>Criterion</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Criterion</td>
<td>Criterion</td>
<td>Criterion</td>
<td></td>
</tr>
<tr>
<td>Demonstrate critical thinking and</td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>writing skills within the discipline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply specialized knowledge within</td>
<td>18</td>
<td>5</td>
<td>5</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Anthropology and related fields</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When comparing student performance to specified performance criteria, a table with the counts and percentages may be useful to summarize the data. The example in “Tool 2: Example of Table of Counts and Percentages” shows data collected from 20 student portfolios for two learning outcomes. It indicates the number of students completing the portfolio component and the percentage who were below, met and above the performance criterion. While 70% of students in the sample achieved or exceeded the standard, 30% were below the performance criterion.

EXAMPLE: Conducting Analysis of Student Performance

Once the student ethics papers in Section III have been evaluated by faculty, the data is recorded and analyzed for interpretation. Analysis provides summaries of the data in a form that is more easily understood than raw data. In order to do this the assessment coordinator reports the number of students who meet or exceed the standard for this learning outcome measure. This count might be displayed in the chart below:

Students Meeting or Exceeding the Performance Criterion for Ethical Reasoning

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Meeting or Exceeding the</td>
<td>35</td>
</tr>
<tr>
<td>Performance Criterion for Ethical</td>
<td></td>
</tr>
<tr>
<td>Reasoning</td>
<td></td>
</tr>
</tbody>
</table>

While this gives a count of the number of students meeting or exceeding the performance criterion in Section III; it is also valuable to further classify their students’ abilities.

Students Meeting or Exceeding the Performance Criterion for Ethical Reasoning

<table>
<thead>
<tr>
<th>Below Standard</th>
<th>Met Standard</th>
<th>Exceeded Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>20</td>
<td>15</td>
</tr>
</tbody>
</table>

This table shows that fifteen (15) students in the program exceeded the standard, but numbers by themselves are sometimes difficult to interpret. To facilitate greater understanding, reporting the percentage of students below standard, those meeting the standard and those exceeding the standard aid in interpretation of the data. The table below shows this.

Percentage of Students Meeting or Exceeding the Performance Criterion for Ethical Reasoning

<table>
<thead>
<tr>
<th>Below Standard</th>
<th>Met Standard</th>
<th>Exceeded Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.5% (5)</td>
<td>50% (20)</td>
<td>37.5% (15)</td>
</tr>
</tbody>
</table>

Choosing how much information to provide from any data analysis should be guided by the type of data gathered and also the needs of the readers that will be interpreting the results. The analyses may vary for each learning outcome measured.

The Role of Advanced Statistical Analysis

As a program’s assessment activity and data increase, more advanced analysis may be useful in understanding student learning. It is possible to:

- Study differences in performance to examine the effects of curricular change
• Conduct pre and post assessments to evaluate effect of specific learning experiences
• Compare program students to national performance on certification examinations

The Office of Assessment can work with programs looking to incorporate these and other types of analysis into their assessment activity.

**Useful Link:**

[Analyzing Assessment Data](#)
Section VI: Share Results

The next step of the cycle is sharing results of program assessment. This phase focuses on interpreting strengths, challenges/areas for improvement, and identifying recommendations and action steps to enhance student learning. There are three steps in sharing results.

Work With Faculty to Understand Assessment Results
Including program faculty in all steps of the assessment process is important to ensure its meaningfulness and effectiveness. The inclusion of faculty insights is probably most important in interpreting results and identifying strategies/action steps for improving student learning. In addition, it is a specific expectation of our accrediting body that faculty substantially participate in assessment— at a minimum all should participate in interpreting results, identifying action steps, and implementing improvements. The methods used for sharing results is driven by character of the department, with some pouring over all the data generated and others simply reviewing summary analysis outlined in Section V of the handbook. Using summary reports of assessment results, and the University Assessment Council’s review of the previous year’s report will typically facilitate rich discussion and generate useful interpretation for the assessment report.

Decide Who Needs to See the Results
In addition to faculty within the program, there are potentially other audiences that wish to see the work programs are doing to improve student learning. The first and most important group to share results with are the students themselves. Sharing results with students is both a strong message of the high program quality you provide for students and can also inform them on how best to be successful in the program. For example, if students who take a key course out of sequence tend to struggle in upper-division coursework, then sharing that with new students could help them plan their schedules to best ensure success. Similarly, sharing results with graduating seniors could provide rich information regarding context of results and/or suggestions for improvement.

In addition to students, sharing results with program alumni, other departments, or your college provides opportunity to demonstrate program continuous improvement through student learning assessment, as well as get feedback from colleagues who might be able to make suggestions and/or assist in making program improvements.

Finally, because we are expected by our accrediting body, the Higher Learning Commission (HLC), to demonstrate program quality through student learning outcomes assessment, it is critical that programs share results with the Office of Assessment. By reporting results to the OOA, it both provides evidence of assessment processes and opportunity for the OOA to provide resources, suggestions, and feedback to improve program assessment processes and outcomes. Section 2 outlines the types of reports that programs must submit on a yearly basis.

Create Appropriate Materials for Your Audience
With many stakeholder groups, it may be appropriate to just share a small portion of the data. For example, at program might share just the results from the evaluation of writing in your program to share at the college level as it may be of interested to others in related disciplines. In other cases, you may just wish to focus on the action steps taken as a result of assessment data, such as in an alumni newsletter.

With reports to the Office of Assessment, it depends on where the program is in the assessment cycle. Plans should provide detail on how programs plan to collect and evaluate data; with yearly updates the focus should be on the evaluation/interpretation of the data, and what action steps were identified/undertaken as a result; the assessment cycle reflection should provide a more holistic analysis of the assessment cycle as a whole and how program improvements have impacted learning. More detail on the specific reporting requirements are in Section 2.

Checklist of Needed Activity for Sharing Results:
1. Work with program faculty to understand assessment results
2. Decide stakeholders with whom to share the results
3. Create appropriate materials for stakeholder groups.
Section VII: Reflect and Begin Again

Assessment is a cyclical process that builds on previous work and activity. The “assessment loop” is closed once a program takes findings from its assessment results and implements changes based on those findings. Though not always, assessment findings often indicate a need to modify the assessment process or the academic program. Making any change also requires consideration of resources and developing a plan of action. The following section provides a framework for thinking about taking action to close the assessment loop.

When and Where “Closing the Loop” Occurs
Change for improvement happens all the time in an academic program—for example, curriculum responds to current needs in the field, or faculty make adjustments to their classes based on student performance and their professional judgement. In assessment processes, however there tend to be two key places in which changes are mainly concentrated.

Changes in the Assessment Process
When reviewing the assessment results, it is also important to evaluate the assessment process. This involves considering all aspects involved in creating the assessment report. Reviewing learning outcomes as well as approaches to gathering data will provide direction on improving the assessment process. Changes in the assessment process are generally done during the development of an assessment plan, though sometimes may happen during data collection and evaluation.

Learning Outcomes
“Tool 1: Re-Assessing Learning Outcomes” provides a structure for reviewing student learning outcomes. Based on findings from the student learning outcome assessment results, a program may want to retain, modify, or eliminate an outcome.

<table>
<thead>
<tr>
<th>Tool 1: Re-Assessing Learning Outcomes</th>
<th>Likely Use of Outcome During Next Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results From Assessment Activity</td>
<td></td>
</tr>
</tbody>
</table>
| Students not performing adequately relative to outcome | • Consider making outcome a priority focus in next cycle; consider potential action steps for improvement; re-assess more than once in next cycle.  
  • Evaluate any action steps taken during last cycle:  
    o If action steps impact student learning immediately, re-assess outcome using same measure early in plan.  
    o If recommendations impact student learning over an extended timeframe; schedule re-assessment for further out in plan |
| Students performing adequately relative to outcome | • If same results for the past 3 years, consider scheduling re-assessment at an appropriate interval (e.g. only once in cycle) |
| Students performance relative to outcome yields unclear current results | • If difficulty in determining appropriate level relates to outcome; re-write outcome and reassess during next cycle  
  • If difficulty relates to measures; retain outcome; revise measure; and re-assess during next cycle |
Measures
In addition to changing outcomes, there might be a need to change the type of data collected. If results obtained were not as expected, it is also important to know if better information could be collected to demonstrate student learning. This change could vary from modifying items on a multiple-choice test to creating a new rubric for reviewing essays.

Data Collection Procedures
In addition to having the correct measures, it is also important to consider how data were collected in previous student learning assessments. Knowing who was included in the assessment data and when data were collected are important to understanding if changes need to be made in data collection procedures.

Changes in the Academic Program
Results from the student learning assessment may indicate that program curricula need to be reviewed and adjusted. These are the types of changes as a result of the yearly practice of measuring and evaluating student learning outcome data. Changing how concepts are introduced and the timing of that introduction to students are two common findings from student learning assessments. Changes tend to be very specific to the results of the assessment data. For example, a program may determine that a writing outcome in the program is not achieved at the capstone level, and a program may appropriately decide on several possible action steps, such as developing capstone guidelines; requiring draft submissions of the capstone paper; evaluating writing development in the program; or ensuring that a junior course provides sufficient opportunity for writing practice. Any or all of those action steps could serve to improve the writing outcome in the program.

Consider Resources
Closing the assessment loop for the assessment process or program may require the use of additional resources. Discovering the need for additional course sections or courses may require resources beyond current budgets. In addition to fiscal resources, there are other resources such as time to consider. Modifying tests or creating new materials requires time, which is a valuable resource.

Taking Action
Opportunities to improve the assessment process and curriculum may emerge from assessment results, but will not be realized without planning and implementation. The assessment loop is only closed if actions are taken to make modifications where necessary. Answering who, what, when, and where questions about assessment modifications are helpful to planning and implementing any changes. “Tool 3: Questions for Planning Change” provides a few questions to assist with mapping and implementing changes.

Tool 3: Questions for Planning Change
- Who will implement the changes?
- Who needs to be involved to make these changes successful?
- What will be changed?
- What needs to occur in order for things to change?
- When will the changes be put in place?
- Where will they be implemented?
- How will they be implemented?
Appendix I
Appendix IA:

Bloom’s Taxonomy “Revised”
Key Words, Model Questions, & Instructional Strategies

Bloom’s Taxonomy (1956) has stood the test of time. Anderson & Krathwohl (2001) have proposed some minor changes to include the renaming and reordering of the taxonomy. This reference reflects those recommended changes.

Adapted from: Office of Professional Development, Indiana University-Purdue University Indianapolis

I. REMEMBER (Knowledge)
(shallow processing: drawing out factual answers, testing recall and recognition)

<table>
<thead>
<tr>
<th>Verbs for Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose</td>
<td>Who?</td>
<td>Highlighting</td>
</tr>
<tr>
<td>Describe</td>
<td>Where?</td>
<td>Rehearsal</td>
</tr>
<tr>
<td>Define</td>
<td>Which one?</td>
<td>Memorizing</td>
</tr>
<tr>
<td>Identify</td>
<td>What?</td>
<td>Mnemonics</td>
</tr>
<tr>
<td>Label</td>
<td>How?</td>
<td></td>
</tr>
<tr>
<td>List</td>
<td>What is the best one?</td>
<td></td>
</tr>
<tr>
<td>Locate</td>
<td>Why?</td>
<td></td>
</tr>
<tr>
<td>Match</td>
<td>How much?</td>
<td></td>
</tr>
<tr>
<td>Memorize</td>
<td>When?</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>What does it mean?</td>
<td></td>
</tr>
<tr>
<td>Omit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognize</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II. UNDERSTAND (Comprehension)
(translating, interpreting and extrapolating)

<table>
<thead>
<tr>
<th>Verbs for Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classify</td>
<td>State in your own words.</td>
<td>Key examples</td>
</tr>
<tr>
<td>Defend</td>
<td>Which are facts?</td>
<td>Emphasize connections</td>
</tr>
<tr>
<td>Demonstrate</td>
<td>What does this mean?</td>
<td>Elaborate concepts</td>
</tr>
<tr>
<td>Distinguish</td>
<td>Is this the same as...?</td>
<td>Summarize</td>
</tr>
<tr>
<td>Explain</td>
<td>Give an example.</td>
<td>Paraphrase</td>
</tr>
<tr>
<td>Express</td>
<td>Select the best definition</td>
<td>STUDENTS explain</td>
</tr>
<tr>
<td>Extend</td>
<td>Condense the paragraph</td>
<td>STUDENTS state the rule</td>
</tr>
<tr>
<td>Give Example</td>
<td>What would happen if...?</td>
<td>“Why does this example...?”</td>
</tr>
<tr>
<td>Illustrate</td>
<td>State in one word...</td>
<td>Create visual representations (concept maps, outlines, flow chart organizers, analogies, pro/con grids) PRO/CON</td>
</tr>
<tr>
<td>Indicate</td>
<td>Explain what is happening.</td>
<td>Note: The faculty member can show them, but they have to do it.</td>
</tr>
<tr>
<td>Interrelate</td>
<td>What part doesn’t fit?</td>
<td></td>
</tr>
<tr>
<td>Interpret</td>
<td>Explain what is meant.</td>
<td></td>
</tr>
<tr>
<td>Infer</td>
<td>What expectations are there?</td>
<td></td>
</tr>
</tbody>
</table>
### III. APPLY

(Knowing when to apply; why to apply; and recognizing patterns of transfer to situations that are new, unfamiliar or have a new slant for students)

<table>
<thead>
<tr>
<th>Verbs for Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply</td>
<td>Predict what would happen if apply</td>
<td>Modeling</td>
</tr>
<tr>
<td>Choose</td>
<td>Choose the best statements that apply</td>
<td>Cognitive apprenticeships</td>
</tr>
<tr>
<td>Dramatize</td>
<td>Judge the effects</td>
<td>“Mindful” practice –NOT just a “routine” practice</td>
</tr>
<tr>
<td>Explain</td>
<td>What would result</td>
<td>Part and whole sequencing</td>
</tr>
<tr>
<td>Generalize</td>
<td>Tell what would happen</td>
<td>Authentic situations</td>
</tr>
<tr>
<td>Judge</td>
<td>Tell how, when, where, why</td>
<td>“Coached” practice</td>
</tr>
<tr>
<td>Organize</td>
<td>Tell how much change there would be</td>
<td>Case studies</td>
</tr>
<tr>
<td>Paint</td>
<td>Identify the results of</td>
<td>Simulations</td>
</tr>
<tr>
<td>Prepare</td>
<td></td>
<td>Algorithms</td>
</tr>
<tr>
<td>Produce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sketch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### IV. ANALYZE

(breaking down into parts, forms)

<table>
<thead>
<tr>
<th>Verbs for Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze</td>
<td>What is the function of...?</td>
<td>Models of thinking</td>
</tr>
<tr>
<td>Categorize</td>
<td>What’s fact? Opinion?</td>
<td>Challenging assumptions</td>
</tr>
<tr>
<td>Classify</td>
<td>What assumptions....?</td>
<td>Retroactive analysis</td>
</tr>
<tr>
<td>Compare</td>
<td>What statement is relevant?</td>
<td>Reflection through journaling</td>
</tr>
<tr>
<td>Differentiate</td>
<td>What motive is there?</td>
<td>Debates</td>
</tr>
<tr>
<td>Distinguish</td>
<td>Related to, extraneous to, not applicable.</td>
<td>Discussions and other collaborating</td>
</tr>
<tr>
<td>Identify</td>
<td>What conclusions?</td>
<td>learning activities</td>
</tr>
<tr>
<td>Infer</td>
<td>What does the author believe?</td>
<td>Decision-making situations</td>
</tr>
<tr>
<td>Point out</td>
<td>What does the author assume?</td>
<td></td>
</tr>
<tr>
<td>Select</td>
<td>Make a distinction.</td>
<td></td>
</tr>
<tr>
<td>Subdivide</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Survey

State the point of view of...
What is the premise?
What ideas apply?
What ideas justify the conclusion?
What’s the relationship between?
The least essential statements are...
What’s the main idea? Theme?
What inconsistencies, fallacies?
What literary form is used?
What persuasive technique?
Implicit in the state is...

V. EVALUATE

(according to some set of criteria, and state why)

<table>
<thead>
<tr>
<th>Verbs for Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraise</td>
<td>What fallacies, consistencies, inconsistencies appear?</td>
<td>Challenging assumptions</td>
</tr>
<tr>
<td>Criticize</td>
<td>What is more important, moral, better, logical, valid, appropriate?</td>
<td>Journaling</td>
</tr>
<tr>
<td>Compare</td>
<td>Find the errors.</td>
<td>Debates</td>
</tr>
<tr>
<td>Defend</td>
<td></td>
<td>Discussions and other collaborating</td>
</tr>
<tr>
<td>Judge</td>
<td></td>
<td>learning activities</td>
</tr>
</tbody>
</table>

VI. CREATE (Synthesis)

(combining elements into a pattern not clearly there before)

<table>
<thead>
<tr>
<th>Verbs for Objectives</th>
<th>Model Questions</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose</td>
<td>How would you test...?</td>
<td>Modeling</td>
</tr>
<tr>
<td>Combine</td>
<td>Propose an alternative.</td>
<td>Challenging assumptions</td>
</tr>
<tr>
<td>Compose</td>
<td>Solve the following.</td>
<td>Reflection through journaling</td>
</tr>
<tr>
<td>Construct</td>
<td>How else would you...?</td>
<td>Debate</td>
</tr>
<tr>
<td>Create</td>
<td>State a rule.</td>
<td>Discussions and other collaborating</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td>learning activities</td>
</tr>
<tr>
<td>Develop</td>
<td></td>
<td>Design</td>
</tr>
<tr>
<td>Do</td>
<td></td>
<td>Decision-making situations</td>
</tr>
<tr>
<td>Formulate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesize</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organize</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role Play</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revised September 2016
Appendix IB: Rubric Toolkit

Rubrics are sets of guidelines that aid in the assessment of student work or activities. Rubrics are often derived from careful analysis of varying qualities of student work. For example, a professor has student work from a recent assignment. By examining the student work and defining the characteristics of “below performance criterion” papers, papers that “meet the performance criterion,” and papers that “exceed the performance criterion,” the professor has a good start on developing a rubric that will categorize the students’ papers based on quality. Rubrics increase the reliability of assessment by making the process of scoring student work more consistent. This helps eliminate bias by ensuring student work is rated on the same criterion.

Types of Rubrics
There are three basic types of rubrics: checklists, holistic rubrics and analytic rubrics. Checklists are the simplest type of rubric and list accomplishments that are evident in the students’ work. Holistic rubrics describe levels of performance with regards to the overall quality of the paper or project as a whole, without considering the components of student work separately. Analytic rubrics, guide the scoring of student work on multiple traits first, and then sum the individual scores to arrive at a total score. Tool 1: Description of types of rubrics illustrates the differences among rubrics.

<table>
<thead>
<tr>
<th>Type of Rubric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checklists</td>
<td>Provide a check-off list of accomplishments completed/present</td>
</tr>
<tr>
<td>Holistic Rubrics</td>
<td>Contain narrative descriptions to focus on the quality of the entire document/performance/project rather than the components of specific traits</td>
</tr>
<tr>
<td>Analytic Rubrics</td>
<td>Contain descriptions of each level of performance for each component/criterion/trait</td>
</tr>
</tbody>
</table>

Checklists give a list of content that should be included in students’ work. The content may be listed sequentially indicating the order in which it should occur. The rater marks each item on the checklist that the student has completed or included in their work. Checklists do not give an indication of the quality of student work.

Holistic rubrics assess the overall quality of student work by providing descriptions of student work at different levels of performance. These descriptions define the overall characteristics of student work at each level of performance. Holistic rubrics provide an overview of student performance and have the advantage of quick scoring. However, holistic rubrics do not differentiate between multiple traits and therefore may not provide as detailed a picture of student performance as an analytic rubric. They are most useful when a single trait is sufficient to define the quality of student work.

Developing Holistic Rubrics
The first step in developing a holistic rubric is to identify the components in the student work that are related to the learning outcome. These components should be linked to the student learning outcomes developed as part of the program assessment plan. After the components are identified, the next step is to decide how many levels are necessary to classify the quality of students’ work. The descriptors chosen for the mid-point level of the rubric should describe the primary characteristics of the students’ work that meet the minimum acceptable program standard.

Analytic rubrics provide separate evaluation of student work on multiple traits. They can pinpoint particular areas where students need improvement, which can be used during planning to suggest opportunities to improve instruction. One drawback to the use of analytic rubrics is that they require more time to use than holistic rubrics.

Developing Analytic Rubrics
The first step in developing an analytic rubric is to identify the trait or traits (knowledge, skills or abilities) to be
measured. For example, the ability to choose an appropriate statistical technique for data analysis is a trait. Traits should be linked to the student learning outcomes and developed as part of the program assessment plan. The number of traits to include in the analytic rubric should be guided by the learning outcome.

The next step is to decide how many levels are necessary to classify the quality in student work for each trait being measured. The descriptors chosen for each level of the rubric should describe the primary characteristics of students’ work for each of the selected traits. Sometimes it can be difficult to find meaningful descriptors for several levels of performance. Remember, all of the characteristics listed must be reflected in the students’ work in order to be scored as meeting that level of the rubric. Tool 2: Internet Resources for Developing Rubrics provides links that may useful in developing rubrics.

Tool 2: Internet Resources for Developing Rubrics

http://rubistar.4teachers.org/index.php
http://www.teach-nology.com/web_tools/rubrics/general
http://www.rcampus.com/indexrubric.cfm
http://teacher.scholastic.com/tools/rubric.htm
http://www.learner.org/workshops/hswriting/interactives/rubric/

Example Checklist:

Checklist for Ethical Reasoning
The paper:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
</tr>
<tr>
<td>![ ]</td>
<td>![ ]</td>
</tr>
<tr>
<td>![ ]</td>
<td>![ ]</td>
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<tr>
<td>![ ]</td>
<td>![ ]</td>
</tr>
<tr>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

Revised September 2016
### Example Holistic Rubric:

<table>
<thead>
<tr>
<th></th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Exceeds Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>The paper:</td>
<td>identifies fewer than two key stakeholders and/or fails to state the ethical</td>
<td>identifies the key stakeholders and states the ethical approach used in the</td>
<td>identifies the key stakeholders and minor stakeholders</td>
</tr>
<tr>
<td></td>
<td>discussion</td>
<td>discussion</td>
<td>states multiple ethical approaches used in the discussion</td>
</tr>
<tr>
<td></td>
<td>features limited discussion of the benefits and risks associated with the</td>
<td>features a full discussion of the benefits and risks associated with the ethical</td>
<td>features a rich and detailed discussion of the benefits and the risks associated</td>
</tr>
<tr>
<td></td>
<td>ethical issue</td>
<td>issue</td>
<td>with the ethical issue</td>
</tr>
<tr>
<td></td>
<td>shows little evidence of thought regarding the best interests of key stakeholders</td>
<td>shows some evidence of thought regarding the best interests of key stakeholders</td>
<td>shows evidence of considerable thought regarding the best interests of key and</td>
</tr>
<tr>
<td></td>
<td>fails to use or is characterized by inappropriate use of normative principles</td>
<td>is characterized by appropriate use of normative principles in discussing the</td>
<td>minor stakeholders</td>
</tr>
<tr>
<td></td>
<td>in discussing the issue</td>
<td>issue</td>
<td>is characterized by exemplary use of normative principles in discussing the issue</td>
</tr>
</tbody>
</table>

### Example Analytic Rubric:

<table>
<thead>
<tr>
<th>Characteristics/Traits</th>
<th>Below Standard</th>
<th>Meets Standard</th>
<th>Exceeds Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies the stakeholders for the</td>
<td>Identifies fewer than two key stakeholders</td>
<td>Identifies the key stakeholders and also minor stakeholders</td>
<td></td>
</tr>
<tr>
<td>ethical issue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>States the ethical approach used</td>
<td>Fails to state the ethical approach used in their discussion</td>
<td>States one ethical approach in their discussion</td>
<td>States multiple ethical approaches in their discussion</td>
</tr>
<tr>
<td>(utilitarianism, justice, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discusses the benefits and risks</td>
<td>Fails to discuss the benefits or the risks associated with the ethical issue</td>
<td>Discusses both the benefits and risks associated with the ethical issue</td>
<td>Discusses both the benefits and risks associated with the ethical issue and</td>
</tr>
<tr>
<td>associated with the ethical issue</td>
<td></td>
<td></td>
<td>proposes suggestions for minimizing the risks</td>
</tr>
<tr>
<td>Demonstrates thoughtful consideration</td>
<td>Fails to consider the best interests of all key stakeholders</td>
<td>Shows consideration of key stakeholders interests</td>
<td>Shows consideration for key和 minor stakeholders best interests</td>
</tr>
<tr>
<td>of stakeholder’ best interests when</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>discussing the ethical issue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses normative principles in</td>
<td>Fails to use normative principles in discussing the issue</td>
<td>Uses at least one normative principle in discussing the issue</td>
<td>Uses multiple normative principles in discussing the issue</td>
</tr>
<tr>
<td>discussing the issue</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix IC: Glossary

- **Action Verb**: A verb that reflects overt behavior that can be observed
- **Analysis**: Process of summarizing information to make inferences about student learning and program effectiveness
- **Assessment Council (AC)**: interdisciplinary group composed of faculty, staff, students, and administrators who, with the Office of Assessment, works together with the aim of improving learning on campus
- **Assessment Cycle Reflection**: A program’s comprehensive look at the past assessment cycle, submitted as a part of Full Program Review
- **Assessment Plan**: A program’s five year plan for student learning outcomes assessment, completed the Fall after Full Program Review
- **Assessment Update**: A program’s yearly submission of progress on student learning outcomes assessment
- **Categorical**: Data that are grouped by performance
- **Closing the Assessment Loop**: Implementing changes based assessment findings
- **Curriculum Map (CM)**: Identifying where learning outcomes are supported in the curriculum
- **Data**: Quantitative or qualitative scores attributed to student work or responses to indirect measure data collections
- **Database**: Electronic collection of data relating to student performance or responses
- **Descriptive Statistics**: Standard formulas that generate numeric indicators of data allowing easier interpretation and comparison of data
- **Direct Measures**: Assessments that evaluate actual samples of student work
- **Expected Results**: Pre-specified percentage of students expected to meet or exceed the performance criterion
- **Graph**: A pictorial display used to help analyze and interpret data.
- **Indirect Measures**: Assessments that analyze supportive evidence, information, and student perspective of learning
- **Measurable Outcomes**: Outcomes that can differentiate the quality of student performance
- **Numerical**: Data that are measured on scales that reflect student performance
- **Observable Outcomes**: Outcomes that can be evidenced by student work or other data
- **Office of Assessment (OOA)**: Office at YSU that coordinates and supports assessment activities across campus
- **Outcome Measures**: Methods for assessing student mastery of learning outcomes
- **Outliers**: Extreme values outside the expected range that should be reviewed for data entry or other errors
- **Performance Criterion**: Pre-specified level of acceptable of student performance (direct measures) or response (indirect measures)
- **Rater**: Faculty responsible for evaluating students’ work using rubrics and other standardized forms
- **Rubrics**: Standardized evaluation forms used to assess student work toward meeting learning outcomes
- **Student Learning Outcomes (SLOs)**: Statements that specify what students will know or be able to do as a result of earning their degrees
- **Success Rate**: Percentage of students meeting the program standard
- **Table**: A listing of data in a systemic format to facilitate comparison and analysis.
PART 2
Reporting Requirements
Section VIII: Assessment Reporting Requirements at YSU

The following information is designed to provide a timeline for program assessment over a five year (undergraduate) or seven year (graduate) time period. Since the reinstatement of Program Review at Youngstown State University, the program review and assessment processes are tied together on the same five or seven-year cycle. **Table 1** below can be used to find the suggested assessment activities for each year in the Assessment Cycle for undergraduate programs. **Table 2** below can be used to find the suggested assessment activities for each year in the Assessment Cycle for graduate programs. Templates for suggested activities are located in the Appendix. **Table 3** and **Table 4** can be used as tools to locate where a program currently is in the Assessment Cycle, for undergraduate and graduate programs, respectively. Match that column with the appropriate Fall semester (top row) to locate which assessment form a program should be completing. For example, an undergraduate program that is up for full program review in Fall 2019, will complete an assessment update form due in Fall 2016.

The Assessment Cycle begins with Full Program Review and ends with the next Full Program Review five years later for undergraduate program assessment and seven years later for graduate program assessment. **However, all programs on campus will start the cycle at a different location depending on the program’s next scheduled full program review;** refer to Table 3 (undergraduate) or Table 4 (graduate) to find your program’s starting point.

**Types of Reporting Requirements**

**Assessment Foundation Documents:** Student learning outcomes and curriculum maps are created at a program’s inception and reviewed for currency when developing or revising assessment plans. These submissions help provide the goals of the program translated into outcomes and also provide a holistic overview of where and how learning is developed throughout the curriculum.

**Assessment Plan:** After completing a full program review, programs gain valuable feedback about the strengths and challenges of their program. A program’s Assessment Plan is designed to be completed the Fall semester following a full program review. It is an opportunity for programs to review their student learning outcomes, measurement tools, and assessment strategies for the following cycle. Plans should reference and reflect on the strengths and challenges of student learning identified through the prior year’s full program review. Assessment Plans detail the measurement of all student learning outcomes in the program over the next four (undergraduate) or six (graduate) years.

**Assessment Update:** After completing an Assessment Plan, programs will report on the progress of the Plan for three (undergraduate) or five (graduate) consecutive years using the Assessment Update template. Updates will focus on the student learning outcomes the program focused on the prior year, how the program measured the outcome, what the program learned from the data, and how the program will make modifications to improve student learning. The following year’s Update will focus on a different student learning outcome(s). Between the consecutive years of Updates, a program will touch on all student learning outcomes at least once.

**Assessment Cycle Reflection:** The Assessment Cycle Reflection is meant to be a summative look at the past four (undergraduate) or six (graduate) years of assessment (including planning, outcome measuring, analysis of student learning, and action steps for improvement). The Cycle Reflection is completed the same year a program submits their full program review and becomes a part of a program’s full program review submission. Cycle Reflections are meant to gauge the health and status of student learning and assessment processes in your program.
**Review Process**

The review process of any assessment submission is focused on providing support and enabling a program to effectively and efficiently evaluate learning in the program. There is evaluation of assessment processes in order to ensure that programs are maintaining high standards in assessing learning, but it is the vitality of the program’s assessment processes, not results, the Office of Assessment will evaluate in its review.

Once submitted, generally a team of volunteer reviewers (including members of the YSU Assessment Council) will review the plans and provide feedback based on a rubric (a set of evaluative criteria). The Office of Assessment also reviews the report and may provide additional feedback. The report is returned to the program with feedback and suggestions for improvement, meant to inform assessment moving forward. Occasionally reports are returned for revision or a consult is scheduled to gather more information or work toward process improvements.

**Reporting Schedule**

With integration of assessment reporting into program review, the needs and types of assessment reporting will follow a more set schedule. See below for more information. If you are unsure of what report to submit after reviewing the reporting schedule, please contact our office for additional guidance.

---

**UNDERGRADUATE PROGRAM ASSESSMENT CYCLE**

Table 1: Suggested Assessment Activities for Undergraduate Programs by Cycle Year

<table>
<thead>
<tr>
<th>Previous Year: Submit Full Program Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
</tr>
<tr>
<td>• Review feedback from Program Review committees</td>
</tr>
<tr>
<td>• Review and/or modify a complete set of Student Learning Outcomes for your program (these will be broken down and analyzed separately in each year and then comprehensively in Year 5)</td>
</tr>
<tr>
<td>• Review and/or modify the program curricular map to reflect any programmatic updates</td>
</tr>
<tr>
<td>• Complete and submit all parts of Assessment Plan (found in Appendix); October deadline</td>
</tr>
<tr>
<td>• Use Assessment Plan to determine subset of Year 1 Student Learning Outcomes</td>
</tr>
<tr>
<td>• Collect data on Year 1 SLOs</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
</tr>
<tr>
<td>• Analyze data on Year 1 SLOs</td>
</tr>
<tr>
<td>• Submit Assessment Update detailing what you learned from analyzing Year 1 SLOs; October deadline</td>
</tr>
<tr>
<td>• Suggest Action Steps to improve student learning on selected SLO’s (if necessary)</td>
</tr>
<tr>
<td>• Implement Action Steps from Year 1 update (if necessary)</td>
</tr>
<tr>
<td>• Use plan to determine subset of Student Learning Outcomes to be focused on for Year 2</td>
</tr>
<tr>
<td>• Collect data on Year 2 SLOs</td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
</tr>
<tr>
<td>• Analyze data on Year 2 SLOs</td>
</tr>
<tr>
<td>• Submit Assessment Update detailing what you learned from analyzing Year 2 SLOs; October deadline</td>
</tr>
<tr>
<td>• Suggest Action Steps to improve student learning on selected SLO’s (if necessary)</td>
</tr>
<tr>
<td>• Implement Action Steps from Year 2 update (if necessary)</td>
</tr>
<tr>
<td>• Use plan to determine subset of Student Learning Outcomes to be focused on for Year 3</td>
</tr>
<tr>
<td>• Collect data on Year 3 SLOs</td>
</tr>
</tbody>
</table>

Revised September 2016
| Year 4 | • Analyze data on Year 3 SLOs  
• Submit Assessment Update detailing what you learned from analyzing Year 3 SLOs; October deadline  
• Suggest Action Steps to improve student learning on selected SLO’s (if necessary)  
• Implement Action Steps from Year 3 update (if necessary)  
• Use plan to determine subset of Student Learning Outcomes to be focused on for Year 4  
• Collect data on Year 4 SLOs |
| Year 5 | • Analyze data/reporting/Action Steps from past 4 years on all SLOs included in the program’s Assessment Plan  
• Complete comprehensive Assessment Cycle Reflection detailing how you use the assessment process to improve learning for students in the program; October draft review, submit with Full Program Review in December. Note: The Assessment Cycle Reflection document becomes a part of the program’s Full Program Review submission.  
• Receive Assessment Cycle Reflection feedback and make edits before Full Program Review submission |

End of Cycle; begin again at Year 1 next year

**GRADUATE PROGRAM ASSESSMENT CYCLE**

Table 2: Suggested Assessment Activities for Graduate Programs by Cycle Year

<table>
<thead>
<tr>
<th>Previous Year: Submit Full Program Review</th>
</tr>
</thead>
</table>
| **Year 1** | • Review feedback from Program Review committees  
• Review and/or modify a complete set of Student Learning Outcomes for your program (these will be broken down and analyzed separately in each year and then comprehensively in Year 7)  
• Review and/or modify the program curricular map to reflect any programmatic updates  
• Complete and submit all parts of Assessment Plan (found in Appendix); October deadline  
• Use Assessment Plan to determine subset of Year 1 Student Learning Outcomes  
• Collect data on Year 1 SLOs |
| **Year 2** | • Analyze data on Year 1 SLOs  
• Submit Assessment Update detailing what you learned from analyzing Year 1 SLOs; October deadline  
• Suggest Action Steps to improve student learning on selected SLO’s (if necessary)  
• Implement Action Steps from Year 1 update (if necessary)  
• Use plan to determine subset of Student Learning Outcomes to be focused on for Year 2  
• Collect data on Year 2 SLOs |
| **Year 3** | • Analyze data on Year 2 SLOs  
• Submit Assessment Update detailing what you learned from analyzing Year 2 SLOs; October deadline  
• Suggest Action Steps to improve student learning on selected SLO’s (if necessary)  
• Implement Action Steps from Year 2 update (if necessary)  
• Use plan to determine subset of Student Learning Outcomes to be focused on for Year 3  
• Collect data on Year 3 SLOs |

Revised September 2016
<table>
<thead>
<tr>
<th>Year</th>
<th>Tasks</th>
</tr>
</thead>
</table>
| Year 4 | - Analyze data on Year 3 SLOs  
- Submit Assessment Update detailing what you learned from analyzing Year 3 SLOs; October deadline  
- Suggest Action Steps to improve student learning on selected SLO’s (if necessary)  
- Implement Action Steps from Year 3 update (if necessary)  
- Use plan to determine subset of Student Learning Outcomes to be focused on for Year 4  
- Collect data on Year 4 SLOs |
| Year 5 | - Analyze data on Year 4 SLOs  
- Submit Assessment Update detailing what you learned from analyzing Year 4 SLOs; October deadline  
- Suggest Action Steps to improve student learning on selected SLO’s (if necessary)  
- Implement Action Steps from Year 4 update (if necessary)  
- Use plan to determine subset of Student Learning Outcomes to be focused on for Year 4  
- Collect data on Year 5 SLOs |
| Year 6 | - Analyze data on Year 5 SLOs  
- Submit Assessment Update detailing what you learned from analyzing Year 5 SLOs; October deadline  
- Suggest Action Steps to improve student learning on selected SLO’s (if necessary)  
- Implement Action Steps from Year 5 update (if necessary)  
- Use plan to determine subset of Student Learning Outcomes to be focused on for Year 5  
- Collect data on Year 6 SLOs |
| Year 7 | - Analyze data/reporting/Action Steps from past 6 years on all SLOs included in the program’s Assessment Plan  
- Complete comprehensive Assessment Cycle Reflection detailing how you use the assessment process to improve learning for students in the program; October draft review, submit with Full Program Review in December. *Note: The Assessment Cycle Reflection document becomes a part of the program’s Full Program Review submission.*  
- Receive Assessment Cycle Reflection feedback and make edits before Full Program Review submission |

End of Cycle; begin again at Year 1 next year

*Revised September 2016*
Find the year that your program will submit a program review to find what assessment reporting you will submit this fall:

### UNDERGRADUATE PROGRAM ASSESSMENT CYCLE

Table 3: Reporting Cycle Location for Undergraduate Programs

<table>
<thead>
<tr>
<th>Year of Full Program Review</th>
<th>Report to Submit in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall 2016</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>PLAN</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2020</td>
<td>PLAN</td>
</tr>
<tr>
<td>Fall 2021</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2023</td>
<td>UPDATE</td>
</tr>
</tbody>
</table>

### GRADUATE PROGRAM ASSESSMENT CYCLE

Table 4: Reporting Cycle Location for Graduate Programs

<table>
<thead>
<tr>
<th>Year of Full Program Review</th>
<th>Report to Submit in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall 2016</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>PLAN</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>REFLECT</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2020</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2021</td>
<td>UPDATE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLAN</td>
</tr>
<tr>
<td>Fall 2023</td>
<td>REFLECT</td>
</tr>
</tbody>
</table>

Revised September 2016
Appendix IIA: Foundational Documents
While it is acceptable (and sufficient) to just place "X"s in the boxes on the template to show where a learning outcome is covered, we encourage you to consider using a key that indicates the level of learning being asked of the student. See below for examples:

- **Bloom's Hierarchy:** (adopted from the Revised Bloom's Taxonomy) the template uses initials to reflect the level of student learning in the course:  
  - **R**=Remember/Understand;  
  - **A**=Apply/Analyze;  
  - **E**=Evaluate/Create  

- Another common breakdown is  
  - **I**=Introduce;  
  - **E**=Emphasize;  
  - **R**=Reinforce

Appendix IIB: Assessment Plan
YSU Student Learning Assessment Plan Template
Due: October 31 in Year One of Assessment Cycle

To Complete the Plan:
For the purposes of this plan, we ask that you describe how you plan to report all student learning outcomes during the five (undergraduate) or seven (graduate) year cycle. This planning will facilitate the ability for departments to focus on using data to provide evidence that students are achieving the learning outcomes expected in the program. Note that programs must assess learning in all the program learning outcomes in the course of the cycle; programs may also choose to place an emphasis in a particular SLO area and evaluate learning in that area multiple times over the course of the plan. Visit the Office of Assessment Templates page to download a Word version of the form and the online submission link: [https://cms.ysu.edu/administrative-offices/assessment/academic-assessment](https://cms.ysu.edu/administrative-offices/assessment/academic-assessment).

**Section 1 – Identifying and Contact Information**
*Note: Save time and don’t fill out this section until you are completing the online form!*

<table>
<thead>
<tr>
<th>Program:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Completing:</td>
</tr>
<tr>
<td>Email Address:</td>
</tr>
<tr>
<td>Campus Phone:</td>
</tr>
</tbody>
</table>

**Section 2 – Outside Accreditation**

1. Does this program undergo program-specific accreditation? If yes, please list the program(s). If no, proceed to Section 3.

| 1. Does this program undergo program-specific accreditation? If yes, please list the program(s). If no, proceed to Section 3. |

2. Please provide the name of your accrediting agency.

| 2. Please provide the name of your accrediting agency. |

3. How often does your accreditation occur, and when is your next self-study, site visit, and/or interim report due? Include all dates as necessary for each program included in this plan.

| 3. How often does your accreditation occur, and when is your next self-study, site visit, and/or interim report due? Include all dates as necessary for each program included in this plan. |

4. How often do you submit interim reports to your primary accreditation agency or agencies?

| 4. How often do you submit interim reports to your primary accreditation agency or agencies? |
Section 3 – Assessment and Evaluation of Student Learning Outcomes

In this section, you will describe how you plan to report on all the student learning outcomes for each program over a five-year year period. **By assessing one or two learning outcomes a year, you should be able to evaluate all SLOs in your program. You may also choose to include a priority focus in your plan (i.e., an area that you may focus on for more than one year of the plan), as long as each SLO in your program is measured once in the plan.**

<table>
<thead>
<tr>
<th>Academic Year in Cycle (list year)</th>
<th>1. List student learning outcomes measured each year</th>
<th>2. Method for collecting data</th>
<th>3. Performance criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 (20xx-xx)</td>
<td>Many programs have around 4-6 learning outcomes. You do not need numerous outcomes unless your accrediting agency requires it. Each SLO should be clearly written, measurable, and focused on a single skill or knowledge set.</td>
<td>Describe two methods for each SLO. At least one must be a direct measure. Explain where the measures will be taken (e.g. capstone, practicum). The same two measurement tools could theoretically cover all your learning outcomes. (You do not need 14 tools for seven outcomes, for instance).</td>
<td>How will learning in the program be evaluated? Significant development of criteria is expected—checklists, grading criteria, rubric for evaluation, etc.</td>
</tr>
<tr>
<td>Year 2 (20xx-xx)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 3 (20xx-xx)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 (20xx-xx)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 5*</td>
<td>No new SLO’s measured in year 5 of the Assessment Cycle; evaluation of Year 4 SLOs should be included in assessment cycle review.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Note: Graduate programs are on a seven year cycle and will include two more years/rows in the chart above.

Templates and submission links available at [https://cms ysu.edu/administrative-offices/assessment/academic-assessment](https://cms ysu.edu/administrative-offices/assessment/academic-assessment)  
Revised September 2016
**Section 4 – Use of Data**

Note: it is of critical importance to the Higher Learning Commission that programs make strong connections between the data they are collecting on Student Learning Outcomes (Section 3) and using that data to: reflect upon the current state of student learning; make changes to the curriculum (when necessary); share that data with stakeholders (both internal and external). The use of data will primarily be reported on the yearly Assessment Updates.

<table>
<thead>
<tr>
<th>4. How will you share data in an ongoing basis with all faculty in your program? <strong>For example, it is recommended that all departments meet once a year to discuss assessment processes.</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>5. How will you share the results of the data discussed in section three with your students, your college, and other stakeholders? <strong>Stakeholders must include groups internal (e.g., students) and external (e.g., Career Services, college-wide assessment committees) to your department.</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>6. Optional: Is there anything else you would like to share and is there any particular area that you want feedback on that would assist you?</th>
</tr>
</thead>
</table>

**Tips & Examples: Assessment Plan**

Below you will find some fictional examples of the types of answers (though certainly not an exhaustive collection) that could be included in a plan. Note that plans that would be considered exemplary do not need to be examples of a textbook assessment process; rather, they show honest exploration of student learning and earnest intent to use data to make decisions and share information. They will not necessarily have “black and white” examples of data, analyses, or conclusions.

### Tips and Examples for Section 3 – Assessment and Evaluation of Student Learning Outcomes

<table>
<thead>
<tr>
<th>Year in Cycle</th>
<th>1. List student learning outcomes measured each year</th>
<th>2. Method for Collecting Data</th>
<th>3. Performance criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td>Many programs have around 4-6 learning outcomes. You do not need numerous outcomes unless your accrediting agency requires it. Each SLO should be clearly written, measurable, and focused on a single skill or knowledge set. <strong>Notes:</strong> You may focus on priority SLO’s (ex: SLO2 below) across multiple years.</td>
<td>Describe two methods for each SLO. At least one must be a direct measure. Explain where the measures will be taken (e.g. capstone, practicum). The same two measurement tools could theoretically cover all your learning outcomes. (You do not need 14 tools for seven outcomes, for instance).</td>
<td>How will learning in the program be evaluated? Significant development of criteria is expected—checklists, grading criteria, rubric for evaluation, etc.</td>
</tr>
<tr>
<td><strong>SLO1:</strong></td>
<td>Students will deliver competent oral presentations.</td>
<td><strong>SLO1:</strong> capstone project; senior exit interview</td>
<td><strong>SLO1:</strong> Capstone assessed with a comprehensive rubric; benchmark of 80% of projects “meets standards” or “exceeds standards;” Exit interview will be analyzed for student confidence in SLO 1</td>
</tr>
<tr>
<td><strong>SLO5:</strong></td>
<td>Students will apply knowledge in real world settings.</td>
<td><strong>SLO5:</strong> pre/post exam in all three junior year labs; rubric on capstone project</td>
<td><strong>SLO5:</strong> pre/post exam evaluation in all three junior labs; capstone using same rubric, 80% for SLO 5 section</td>
</tr>
<tr>
<td><strong>SLO2:</strong></td>
<td>Students will produce persuasive written work.</td>
<td><strong>SLO 2:</strong> Research on best practices for ways to develop writing in the discipline; report out to program faculty</td>
<td><strong>SLO3:</strong> capstone presentation; capstone project team member evaluation)</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td><strong>SLO 3:</strong> Students will demonstrate skillful team work in community group projects.</td>
<td><strong>SLO 2:</strong> Revise research methods intro module for writing instruction; revise capstone project guidelines and possibly include draft report review deadline (TBD with faculty input)</td>
<td><strong>SLO3:</strong> capstone evaluated using same rubric, 80% for SLO 3 section; team member evaluation form (in use)</td>
</tr>
<tr>
<td><strong>SLO2:</strong></td>
<td>Students will produce persuasive written work.</td>
<td><strong>SLO3:</strong> capstone project guidelines and possibly include draft report review deadline (TBD with faculty input)</td>
<td><strong>SLO3:</strong> capstone project guidelines and possibly include draft report review deadline (TBD with faculty input)</td>
</tr>
</tbody>
</table>

### Year 3
- **SLO 4:** Students will synthesize accurate content knowledge.
- **SLO 2:** Students will produce persuasive written work.
- **SLO 4:** Internship evaluation by supervisor and instructor
- **SLO 2:** Capstone project assessed with rubric; research methods final paper assessed with rubric
- **SLO 4:** Internship evaluation by supervisor and instructor
- **SLO 2:** Capstone project assessed with rubric; research methods final paper assessed with rubric
- **SLO 6:** Field site supervisor evaluation form and internship coordinator observation form (both in use now)
- **SLO 2:** Capstone project assessed with rubric; research methods final paper assessed with rubric
- **SLO 4:** Internship evaluation by supervisor and instructor
- **SLO 2:** Capstone project assessed with rubric; research methods final paper assessed with rubric
- **SLO 6:** Field site supervisor evaluation form and internship coordinator observation form (both in use now)
- **SLO 2:** Capstone project assessed with rubric; research methods final paper assessed with rubric

### Year 4
- **SLO 6:** Students will evaluate ethical dilemmas in the field of X.
- **SLO 2:** Students will produce persuasive written work.
- **SLO 6:** Case studies from legal issues class assessed with rubric (in use, will include in future report); senior exit interview question analysis
- **SLO 2:** Capstone project and research methods final paper assessed with rubric
- **SLO 6:** Rubric evaluation of case studies; exit interview question evaluation (question on professional preparation for unscripted problems)
- **SLO 2:** Capstone project assessed with revised rubric, 80% satisfactory or above with SLO 2; research methods assessed with rubric

### Year 5
*No new SLO’s measured in year 5 of the Assessment Cycle.*

---

**Tips and Examples for Section 4 – Evaluation of Data**

3. **How will you share data in an ongoing basis with all faculty in your program?** For example, it is recommended that all departments meet once a year to discuss assessment processes—the highlights of such a meeting could be included here.

This can include an annual faculty meeting to discuss assessment processes, as well as other ways the department is working to get more faculty involved—this does not necessarily have to be formalized (e.g., discussions in faculty meetings about student strengths/challenges could be summarized and documented). **The goal is to have all faculty participating in the assessment process in some way.**

**Example:** At one department meeting (prior to the annual department meeting on assessment) faculty discussed examples/artifacts of students’ work at three different levels: proficient, adequate, and inadequate. This discussion led to revisions of the essential skill criteria for evaluating the senior capstone project. At the annual meeting, all faculty reviewed the revised criteria and approved the recommended changes.
<table>
<thead>
<tr>
<th>4. How will you share the results of the data discussed in section three with your students, your college, and other stakeholders? Stakeholders must include groups internal (e.g., students) and external (e.g., Career Services, college-wide assessment committees) to your department.</th>
</tr>
</thead>
</table>
| Include information on both internal (e.g. students) and external (e.g. advisory groups) audiences. In particular, it is critical to share the information back to students.  
**Example:**  
1. **Students:** Faculty supervising students on their senior capstone provide a summary of patterns in senior students’ capstones as the students begin their capstone project. Students provide input at the beginning of the capstone course about ways to improve writing skills and skill perception. Themes from the class discussion are shared in class and during faculty meetings.  
2. **College:** Faculty present methods, findings, and action steps during one meeting of the college-wide assessment committee.  
3. **Additional:** Information on student learning is also included in the departmental newsletter (sent to students, alumni, faculty, and prospective students). The newsletter is produced semi-annually. |
| 5. Optional: Is there anything else you would like to share and is there any particular area that you want feedback on that would assist you? |
| This question will not be scored; however, it can be a way to inform the Assessment Council on parts of your “assessment story” we did not give the opportunity to discuss in other questions. We also want to know what assistance you need for your planning and reporting.  
**Example:** Rather than use a rubric, our department found that it was more helpful for faculty to review/discuss the key criteria for evaluating the students’ writing and oral communication skills. The capstone project was a good starting point for us because there were a lot of conversations already happening by faculty about the capstone and Quest presentations. The criteria are summarized in the meeting minutes of April 14, 2012 and are attached to this plan. Now we want to look at student work at earlier points in the students’ progress through the program. To assist us, our department requests examples of how other departments gather students’ input and share aggregate data on student learning with them. We would also like information on how to increase faculty participation. |

Templates and submission links available at [https://cms.ysu.edu/administrative-offices/assessment/academic-assessment](https://cms.ysu.edu/administrative-offices/assessment/academic-assessment)  
Revised September 2016
# Rubric: Assessment Plan

Please circle the box that best describes the unit response for each selected question, as well as a holistic score.

<table>
<thead>
<tr>
<th>Question</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Progressing</th>
<th>Inadequate</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learning outcomes stated.</td>
<td>All of the programs’ student learning outcomes (SLOs) are included. The learning outcomes are clearly written, measurable, and focused on a single skill or knowledge set.</td>
<td>All of the programs’ student learning outcomes are listed. Learning outcomes are measurable, but may be focused on more than one knowledge/skill area or could be streamlined.</td>
<td>Attempt at learning outcomes included, but may not be measurable or not focused on student learning.</td>
<td>Little or no reference to learning outcomes. May focus on program outcomes only.</td>
<td>Item left blank</td>
</tr>
<tr>
<td>2/3. Methods that will be used to assess student learning.</td>
<td>Clear and effective choice of two methods (and not more) for measuring learning are provided for each SLO over the course of the plan. At least one method for each SLO is a direct measure. Where measures will be used is included. Clear that performance criteria are in place for most measures. Ideally, samples of performance criteria are provided.</td>
<td>Two methods for measuring learning outcomes provided for each SLO. At least one is a direct measure. Includes reference to where measures will be used and development of criteria</td>
<td>Includes only one effective method for each SLO. -or- Some/all methods may not be aligned with SLO or may not measure student learning. -or- Measures for each SLO are all indirect measures. -or- Incomplete information about where measures will be assessed or performance criteria lacking</td>
<td>No measures identified no information about those being assessed, or no performance criteria evident.</td>
<td>Item left blank</td>
</tr>
</tbody>
</table>

### 4. Faculty engagement in the assessment process.

Note: as a plan, some future orientation in the response to question four is acceptable.

| Department faculty are an integral part of assessment activities; multiple faculty are involved in the collection and analysis of data; and all are involved in ongoing review of data and results as well as the development and carrying out of action steps to improve student learning. |
| Responsibility for assessment is not only in the hands of the assessment coordinator, e.g., other faculty assist in collection, review, and/or analysis. Department faculty meet at least once a year to review data and develop action steps |
| There is some evidence that assessment is or is becoming a shared departmental activity, but significant portions are the responsibility of the assessment coordinator alone (and no explanation, such as a course reduction, exists). Faculty may occasionally meet as a department, but on less than a yearly basis. |
| It is clear that vast majority of assessment related activities are done only by the assessment coordinator. Other faculty in the department do not assist in or discuss assessment. |

### 5. Major stakeholders identified and how data will be shared with stakeholders.

| Information on both internal (e.g., students) and external (e.g., advisory groups) are clearly identified. Both the type and frequency of communication is explained. Specific reference to both active communication and inclusion of students as a stakeholder group. |
| Internal and external stakeholders identified and the modes of communication explained. Students should be included as a stakeholder group. |
| Stakeholders identified, but may exclude significant stakeholders or major groups (e.g., students). May incompletely explain ways of communicating with stakeholders. |
| No relevant stakeholders identified and no description of how or when the unit communicates with stakeholders. |

### 6. Did the unit ask for feedback or assistance that requires additional action from the Office of Assessment (OOA)

| Yes |
| No |

Templates and submission links available at: [https://cms.ysu.edu/administrative-offices/assessment/academic-assessment](https://cms.ysu.edu/administrative-offices/assessment/academic-assessment)
### Overall Score; Comments/Recommendations made by the assessment team:

**Strengths of the Plan:**

**Feedback/Recommendations:**

**If revisions are needed please list the items:**

Appendix IIC: Assessment Update
YSU Student Learning Assessment Update Template

Due: October 31 in Year Two, Year Three, & Year Four of Assessment Cycle*

Department:___________ Program: _________ Contact Name:______________ Email:_____________

Directions:
1. List student learning outcome(s) focus during the past academic year.
2. Summarize methods used to assess each SLO. Detailed data is not needed, only methods and groups evaluated.
3. Summarize the student learning evidence and findings—what were student learning strengths and challenges based on the data?
4. Indicate specifically how this evidence was used to improve student learning in the program.
5. Outline the status of action steps in previous years and/or since the last program review.
6. Submit a completed form via online submission form at: https://cms.ysu.edu/administrative-offices/assessment/academic-assessment.
7. Please attach copies of any surveys, rubrics, or other assessment tools as appropriate.

<table>
<thead>
<tr>
<th>Prior Year Student Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment Methods for each reported SLO</td>
</tr>
<tr>
<td>Evidence &amp; Findings Regarding Student Learning</td>
</tr>
<tr>
<td>Use of Results</td>
</tr>
<tr>
<td>Prior Action Steps Status</td>
</tr>
</tbody>
</table>

*Note: Graduate Programs will submit this form in Years 2, 3, 4, 5, and 6.

## Tip & Examples: Assessment Update

**Due:** October 31 in Year Two, Year Three, & Year 4 of Assessment Cycle*

| Prior Year Student Learning Outcomes | SLO 1: Students will be able to compare and critique major works, genres, periods, and critical approaches to British, American, and World Literature.  
SLO 2: Students will be able to write clearly, effectively, and creatively. |
|-------------------------------------|------------------------------------------------------------------|
| Assessment Methods for each reported SLO | These methods assessed both learning outcomes:  
1. Senior Thesis, given in capstone course, the performance criteria matrix for writing proficiency is attached to this report. There were 16 capstone theses in 2013-14  
2. Senior Exit Survey, given to graduating seniors when they register to graduate. 12 out of 21 students responded to the exit survey. |
| Evidence & Findings Regarding Student Learning | Thesis: In reviewing the performance criteria components, it seems like those who did not submit a rough draft were not able to score in the proficient or above range for writing. Generally, students were able to adequately contextualize the main period or genre of their theses, but a significant portion struggled when comparing or drawing parallels across, particularly in historical periods. In addition, those who drew on sources from both within and outside the discipline tended to score highest on the assignment overall.  
Exit Survey: Question number 3 asked if their training in the major prepared them to produce well-written documents in their professional careers. They answered 66% (10)—strongly agree or agree; 20% (3)—neutral; 13% (2)—disagree. In the open-ended response portion of question 3, 4 of those who responded neutral or disagree stated that they did not begin to write papers in their major courses until late into their junior year and two felt they needed more feedback from faculty about what constituted a well-written paper in the field. |
| Use of Results | Based primarily on the theses data, the department will:  
1. Begin requiring a rough draft in the thesis course. The faculty assessment committee will also do a survey of other faculty to ascertain how often rough drafts are required or encouraged throughout the curriculum, as there were some differing practices when discussed at the last faculty meeting. The addition of this requirement, as well as the faculty rough draft survey, will also address the confidence issues raised by some students in the senior survey.  
2. Attend more closely to the ability of individual students to make connections between historical periods, genres, and approaches in the development of their thesis papers. Some faculty were concerned that perhaps the current curriculum structure allows students to focus too much on the area of their interest and may not be providing sufficient breadth—this SLO will be evaluated again next year. |
| Prior Action Steps Status | (Note: eventually this will be for action steps since the last program review; if you have not yet undergone full program review, then report on action steps in the last 3-5 years.)  
Three years ago we recommended that the research methods class be a required course before admittance into upper-division coursework (SLO4); faculty discussions have indicated that students seem better equipped for the applied research courses. This SLO will be formally evaluated next year.  
Two years ago the assessments indicated a weakness in SLO3 due to too large a gap from 26xx courses to the next time it was covered in 48xx courses; the curriculum committee met last year to discuss, but it was tabled due to accreditation preparations. It will be addressed this academic year. |

*Note: Graduate Programs will submit this form in Years 2, 3, 4, 5, and 6.

Templates and submission links at [https://cms.ysu.edu/administrative-offices/assessment/academic-assessment](https://cms.ysu.edu/administrative-offices/assessment/academic-assessment)  
Revised September 2016
# Rubric: Assessment Update

Review Team: Program:
Date: Program Rubric Designation:

Please circle the box that best describes the unit response for each selected question. A designation may be based on the update matching most, but not necessarily all, the criteria at a score level.

<table>
<thead>
<tr>
<th>Question</th>
<th>Proficient</th>
<th>Developing</th>
<th>Revision Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Assessment Methods</td>
<td>1 or 2 measures for each student learning outcome (SLO) (overlap in methods is acceptable)</td>
<td>Only one SLO included in update</td>
<td>No measures identified and no information about those being assessed.</td>
</tr>
<tr>
<td></td>
<td>Methods are appropriate and measure the target SLO</td>
<td>Some/all methods may not be aligned with SLO or may not measure student learning.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reference to where and when measure taken</td>
<td>One SLO not measured</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>May have incomplete information about those being assessed</td>
<td></td>
</tr>
<tr>
<td>3. Evidence and Findings of Student Learning</td>
<td>Successes and/or challenges in student learning identified</td>
<td>Identifies strength and challenge, but may not be related to the SLO or may not be based on data.</td>
<td>No strength and/or challenge identified, not related to student learning.</td>
</tr>
<tr>
<td></td>
<td>Findings based in data collected, though other sources/professional judgment also may be used to support conclusions</td>
<td>Findings focus on program, rather than student learning, strengths and challenges.</td>
<td></td>
</tr>
<tr>
<td>4. Use of Results</td>
<td>Action step (no action, if supported by data) rooted in the student learning findings</td>
<td>Action step is mentioned, but is not grounded in the analysis of SLO data (i.e., strengths and challenges analysis).</td>
<td>Action step is not provided, or is not related to student learning.</td>
</tr>
<tr>
<td></td>
<td>Action step is appropriate to the learning outcomes and can reasonably be carried out</td>
<td>Action step may not impact learning outcome</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In some cases, further study or confirmation of results by re-assessment is appropriate</td>
<td>Action step may be unattainable</td>
<td></td>
</tr>
<tr>
<td>5. Prior Action Steps Status</td>
<td>Action steps explained and current status outlined</td>
<td>Action steps may not be fully explained or current status is lacking</td>
<td>No action steps or status provided</td>
</tr>
<tr>
<td></td>
<td>Action steps may be listed as completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If not complete, some next steps included</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments/Recommendations made by the Assessment Team:**

**Strengths of the Report:**

**Feedback/Recommendations:**

Templates and submission links at [https://cms.ysu.edu/administrative-offices/assessment/academic-assessment](https://cms.ysu.edu/administrative-offices/assessment/academic-assessment)  
Revised September 2016
Appendix IID:
Assessment Cycle Reflection

YSU Assessment Cycle Reflection Template
Due: October 31 in Year Five of Assessment Cycle*

Program: Person submitting:
Date: Email:

Online template at: https://cms.ysu.edu/administrative-offices/assessment/academic-assessment.

Please address the following questions; you may attach evidence as needed.

1. What are your student learning outcomes for the program (entire set over the past assessment cycle)?

2. In the cycle, what were major strengths or challenges in student learning?

3. Were there action steps identified in the past assessment cycle?

4. Where those changes made? What is the evidence of these changes?

5. What is the impact of those changes on student learning in the program?

6. If there is no evidence of impact, what data do you need to collect to evaluate change? What is your timeline for evaluation, starting in the next academic year?

7. How well does your assessment process adequately evaluate student learning in the program?

8. What are current concerns regarding student achievement of program learning outcomes?

9. Upon which outcomes should the program focus for the next cycle? Programs may choose to place a priority focus on a particular program student learning outcome (e.g., student writing, contextual analysis, technical performance, etc.) as long as each SLO is measured once in the next five years¹.

*Graduate programs will submit this form in Year 7.

¹ For example, if a program with six SLOs wishes to place a priority focus on one area of learning concern—for example, writing—the program could focus its data collection, analysis, and action steps in that area each year with the intent of making changes and looking for learning improvements. Programs could use one method to measure the others over the next five years. The result would be: Y1, writing/SLO2; Y2, writing/SLO3; Y3, writing/SLO4; Y4, writing/SLO5; and Y5, writing/SLO.
Assessment Cycle Reflection Worksheet Tips and Hints

The basic question categories included in the worksheet are:

- Questions 1-6 — reflection on the entire past assessment cycle
- Questions 7-9 — consideration for the next assessment cycle

Please address the following questions; you may attach evidence as needed.

1. What are your student learning outcomes for the program?

   List all the student learning outcomes (SLOs) for the program. This is typically 5-7 statements of what students should know and be able to do upon completion of your program. In some cases there may be more or fewer SLOs, depending on the length of the program and programmatic accreditation requirements.

2. In the cycle, what were major strengths or challenges in student learning?

   Provide an analysis, based on all reports in the last assessment cycle, of major strengths or challenges in student learning. Focus on the larger, more significant findings, rather than just listing every single finding in the last cycle. Programs should include at a minimum several of each (as long as they were previously identified).

3. Were there action steps identified in the past assessment cycle?

   If there were challenging in student learning, what action steps were identified in order to improve student learning?

4. Where those changes made? What is the evidence of these changes?

   If the program decided that an action step was needed, was that action step completed and what is the evidence for completion? For example, if a curriculum change was made, did it receive approval from the curriculum committee? If an emphasis change was made in a course, do you have a sample of the revised syllabi? It is not necessary to attach, but you should include it in the program assessment archive.

5. What is the impact of those changes on student learning in the program?

   In order to “close the loop” in outcomes assessment, a program must first go through the process of assessing student learning and evaluating the data. If changes are made in order to improve student learning, how does the program know if they were effective? In order to evaluate the efficacy of a curriculum change, the program must consider if the change made had the intended impact.

6. If there is no evidence of impact, what data do you need to collect to evaluate change? What is your timeline for evaluation, starting in the next academic year?

   If there is no current evidence for action step impact on student learning, how could you evaluate it within the next year? If there are multiple action steps to evaluate, then a timeline for assessment should be outlined. It is not necessary to have evidence of impact of every single curricular improvement, but every program should be able to show evidence of completing the assessment loop.

7. **How well does your assessment process adequately evaluate student learning in the program?**

    *How adequate is the assessment process in your program? Do you have sufficient participation, continuity, and structure? Do the methods and sampling adequately evaluate learning by the end of the program, or adequately respond to further investigate learning challenges? Does the sample include all types of students in your program (on-campus; online; off-site)?*
    
    *This question requests that faculty self-reflect on the structure of the assessment processes in the program.*

8. **What are current concerns regarding student achievement of program learning outcomes?**

    *Are there any larger concern areas that you have regarding student learning? Do faculty conversations about student learning veer towards the same areas over and over? Is there an area in which faculty would like to focus concentrated effort and/or see improvements?*

9. **Upon which outcomes should the program focus for the next cycle? Programs may choose to place a priority focus on a particular program student learning outcome (e.g., student writing, contextual analysis, technical performance, etc.) as long as each SLO is measured once in the next five years*.**

    *If the “two SLOs a year, with two methods of assessment each” approach has good faculty participation, is adequately evaluating student learning, and is working for the program, then you are welcome to continue this approach to program assessment. However, if you’d like to focus on a particular area or two, then the Office of Assessment would like to provide sufficient flexibility for a program to design a five-year plan to focus on those areas of particular concern. As the footnote explains, while it is still necessary that the program collect some data on all SLOs, it may be possible to craft a plan that will allow faculty to put more time and effort into those areas that may benefit from more focused and sustained effort.*

---

* For example, if a program with six SLOs wishes to place a priority focus on one area of learning concern—for example, writing—the program could focus its data collection, analysis, and action steps in that area each year with the intent of making changes and looking for learning improvements. Programs could use one method to measure the others over the next five years. The result would be: Y1, writing/SLO2; Y2, writing/SLO3; Y3, writing/SLO4; Y4, writing/SLO5; and Y5, writing/SLO.
### Scoring Guide: Assessment Cycle Reflection

Each question on the Assessment Cycle Reflection will be rated as either “Meets Expectations” or “Needs More Information.” This guide provides specific feedback on that scoring. If your program received “Needs More Information” on any of the questions, please review the guide below for recommendations. It is imperative that a program makes any suggested edits before submitting this as a part of Full Program Review. The Office of Assessment is available for consult.

<table>
<thead>
<tr>
<th>Section</th>
<th>Questions</th>
<th>IF RATED AS “NEEDS MORE INFORMATION,” QUESTION-SPECIFIC RECOMMENDATIONS</th>
<th>IF RATED AS “NEEDS MORE INFORMATION,” SECTION-SPECIFIC RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of all SLO assessment in program</td>
<td>1. What are your student learning outcomes (SLOs) for the program?</td>
<td>All programs should be able to list the SLOs for their program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. In the cycle, what were major strengths or challenges in student learning?</td>
<td>This information should be easily gathered from yearly assessment reports.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Were there action steps identified in the past assessment cycle?</td>
<td>Action steps are based on data reflecting SLO challenges, also identified in yearly assessment reports.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Were those changes made? What is the evidence of these changes?</td>
<td>This information is based on program follow up on action steps and source may vary.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. What is the impact of those changes on student learning in the program?</td>
<td>Programs should follow up on action steps to see if positively impact student learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. If there is no evidence of impact, what data do you need to collect to evaluate change? What is your timeline for evaluation, starting with the 2015-2016 academic year?</td>
<td>If follow up has not yet happened, then programs should consider how they will evaluate if changes are positively impacting learning.</td>
<td></td>
</tr>
<tr>
<td>Assessment process evaluation</td>
<td>7. How well does your assessment process adequately evaluate student learning in the program?</td>
<td>Are there adjustments to the process that would provide better information on student learning?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. What are the current concerns regarding student achievement or program learning outcomes?</td>
<td>Is there an area of focus, a particular student learning challenge, in which program faculty are concerned?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Upon which outcomes should the program focus for the next cycle?</td>
<td>If specific or major concerns are identified, would the program prefer to modify their plan to focus on a specific learning concern area?</td>
<td></td>
</tr>
</tbody>
</table>

**High Priority/Concern:** If multiple questions were rated as “Needs More Information,” then it is of critical importance that the program ensure data collection and evaluation are taking place in the program. It is an expectation that all programs are collecting, analyzing, and making improvements based on student learning data.

**Low Concern:** While it is less important on this cycle review, it should serve as a prompt for programs to consider how well their current assessment process allows for adequate evaluation of learning. These reflections will be useful if the program wishes to adjust their assessment process now and/or in planning for their next assessment cycle after their full program review year.