GUIDE TO OUTCOMES ASSESSMENT REPORTS

Procedures and Standards for Academic Programs

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL
OFFICE of INSTITUTIONAL RESEARCH and ASSESSMENT
Revised July 2017
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GUIDE TO OUTCOMES ASSESSMENT REPORTS

Background

UNC-Chapel Hill’s Policy on Outcomes Assessment (see Appendix A) requires all academic programs to articulate student learning outcomes, measure them, and use the results of these assessments to improve the program. In addition to supporting a culture of continuous improvement, assessment of program and student learning outcomes is required by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), UNC-Chapel Hill’s regional accreditor. SACSCOC’s standard states:

“The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of improvement based on analysis of the results in educational programs, to include student learning outcomes.”

Academic programs are required to have student learning outcomes assessment plans and to update them whenever there are significant changes to the curriculum or to the assessment methods used. For information on creating assessment plans, see the An Introduction to Student Learning Outcomes Assessment and current templates for assessment plans provided on the website of the Office of Institutional Research and Assessment at http://oira.unc.edu/institutional-effectiveness/unit-level-assessment/assessment-in-academic-programs/.

Annual reports documenting assessments and improvements made in response to the results are collected by the Assessment Coordinator in each dean’s office, reviewed, and submitted to the Executive Vice Chancellor and Provost annually. Assessment reports are also required documentation for the self-study prepared for the University’s Program Review process.

Annual Assessment Calendar

The full cycle and current annual calendar for submission and review of assessment plans and reports can be found on the website of the Office of Institutional Research and Assessment at:


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2 “Self-Study Outline and Required Key Elements,” Program Review webpage on The Graduate School website: http://gradschool.unc.edu/policies/faculty-staff/program-review/outline.html
Academic Programs Required to Submit Plans and Reports

For outcomes assessment purposes, an academic “program” is a credit-bearing course of study that results in a degree or a professional or stand-alone certificate. ³

The following describes which programs are required to participate in the outcomes assessment process under the UNC-Chapel Hill’s Policy on Outcomes Assessment (see Appendix A):

- **All undergraduate, terminal master’s, and doctoral and professional degree major programs, and free-standing certificate programs must participate.**

- **Within degree programs, the focus of learning outcomes assessment is the major. Minors, concentrations, program tracks, and certificates offered only to degree-seeking matriculated students may be assessed separately at the discretion of the dean or chair, but the results do not need to be reported centrally.**

- A program with multiple degrees at the same level and a common core curriculum (e.g., BA and BS in Biology; MHA and MPH in Health Policy and Management) may submit one assessment plan and report, but should include some outcomes and measures unique to each degree.

- **Graduate programs that only admit students to pursue a doctoral degree but are approved to award a master’s degree as students’ progress toward the doctorate or exit the program without completing the doctorate may prepare one assessment plan and report. The outcomes should reflect what students know or can do upon completion of the doctoral degree. Separate plans and reports should be submitted for graduate programs that admit students specifically to pursue a master’s degree (i.e., a terminal master’s degree).**

- **Programs with residential and distance education versions of the same degree may submit joint or separate plans and reports, but either way, assessment reports should include comparisons between the knowledge and skills attained by graduates regardless of mode of delivery.**

Proposals for new academic degree and certificate programs submitted to the Office of the Executive Vice Chancellor and Provost must include an assessment plan. The first assessment report for a new program is due on August 1st following the entry of the first cohort of students and may be limited to formative assessments of student learning until the initial cohort completes the program and their outcomes can be fully assessed.

Assessment Plan and Report Templates


³ A professional certificate program is defined here as one that admits non-degree students whose objective is the development of a specialization in a specific field (for example, Dental Assisting).
COMPONENTS OF THE ANNUAL OUTCOMES ASSESSMENT REPORT

The assessment report (see Appendix B) is built from elements of the program’s assessment plan including: the mission statement, description of responsibilities for assessment and review of outcomes within the program; listings of the student learning outcomes, and methods of assessment, and performance targets. Instructions for these sections are repeated from the Introduction to Student Learning Outcomes Assessment document.

The remainder of the annual report consists of a description of the findings of the assessments conducted during the past year, an analysis of the results including whether the stated performance targets were met, and the improvements made based on the assessment results.

Mission

(Note: This can be copied from assessment plan.) Two or three sentences identifying the overall purpose of this academic program, the types of students it serves, careers the program prepares students to pursue, etc. If the school or division has specific academic goals or strategic initiatives, indicate how this program is aligned with them.

Responsibility for Assessing Outcomes and Reviewing Results

(Note: This can be copied from assessment plan.) A brief summary of the procedures used for monitoring and evaluating student progress in achieving the program’s expected outcomes or competencies. Identify the faculty committees and positions responsible for reviewing assessment results and making decisions about curriculum and program improvement.

Student Learning Outcomes, Assessment Methods, Results, and Improvements

Column 1 — Expected Student Learning Outcomes

(This can be copied from assessment plan.) Enter the student learning outcomes that describe what students should know or be able to do upon completion of the program. The number of outcomes to be assessed is a faculty decision, and might be influenced by the discipline, the subject matter, the degree level, what graduates are being prepared to do, and professional or accreditation requirements.

Here are two approaches:

1. Identify 3-5 of the most important learning outcomes for this program.
   - For example, many doctoral programs identify four major outcomes that, with some variations, describe: (1) advanced knowledge of the discipline, (2) research skills, (3) college teaching skills, and (4) professional development such as presentation skills, ethics, grant writing, etc.

2. Use specific competencies or learning objectives required for professional practice or suggested by external accreditors (e.g., ABA, CODA, LCME, etc.). These may be treated as equivalent to student learning outcomes.

   An example of a competency established for a public health program is:
• “Apply epidemiological methods to the measurement of disease rates, prevention of infectious diseases, and the development of health programs and policies.”

In either case, the student learning outcome or competency statements should:

1. Focus on what students can demonstrate that they have learned by completing the program, not what the program does to deliver the program.
2. Be observable and measurable.
3. Be stated in terms of specific knowledge, skills, and behaviors.
4. Use action verbs to describe the outcomes to be demonstrated (see examples in Appendix C).

Column 2 — Methods Used to Assess Outcomes and Performance Targets

For each learning outcome, list the method(s) you have used to gather evidence to determine whether the students have achieved it by the end of the program, along with performance targets (if appropriate). Guidance concerning choice of assessment methods is provided below, and additional information can be found in Appendix D.

Direct Methods of Assessment

(Note: Must report on at least one) These are evaluations of student work products and performances, carried out using a rubric or other set of agreed-upon standards to rate the work so that individual results can be aggregated for review at the program level.

• Professional or licensure examinations, with targets established based on pass rates, norms, or benchmarks.

• Evaluation of work produced as part of culminating experiences.
  Since outcomes assessment focuses on what students know and can do at the end of the program, the most relevant methods are those that measure students’ ability to synthesize and integrate knowledge and to apply theory and concepts acquired in their coursework. Assessments of comprehensive exams, papers and projects from capstone courses, practica, research experiences, theses, dissertations, etc., provide natural opportunities to assess learning outcomes across the program.

• Assessments of student work sampled across senior-level or advanced courses.
  Often bachelor’s degree and certificate programs require completion of a distribution of courses without a culminating experience. Faculty in these programs usually collect a sample of papers and other artifacts from multiple courses and assign a team to rate them using a rubric designed to measure specific outcomes, generating data that can be analyzed and aggregated.

• Evaluation of assignments from individual courses not assessed as part of culminating experiences.
  Sometimes a single course is the only place in the curriculum where students get to demonstrate

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acquisition of an important learning outcome or competency. Examples might include a specific lab or a research presentation embedded in a course.

Indirect Methods

(Nota: Include some) For most programs, surveys, focus groups, self-assessments, etc., generate important information from students and external sources to supplement, validate, and help interpret results of direct assessments, often providing rich details that inform efforts to improve student learning. Graduate programs should consider using results from the Graduate Student Exit Survey, available on The Graduate School’s website (http://gradschool.unc.edu/about/data/exit/). In addition, summaries from faculty committees’ annual reviews of individual graduate student progress in their programs are also good formative assessments that may be reported.

Methods That Usually Do Not Measure Student Learning but Provide Other Useful Feedback

(Nota: Include if important to the program) Many accrediting bodies, including SACSCOC, strongly discourage complete reliance on course evaluations, course grades, etc., for measuring student learning outcomes, for the reasons cited in Appendix D. However, these methods often inform improvements in processes or instruction, and if your program uses them to supplement results from direct assessments, you can report them as indirect methods as long as you also have direct measures.

Performance Targets and Measurement Tools

If feasible, indicate levels of achievement or progress that are reasonable for the outcomes measured.

For example:

- "The program’s target performance for the written comprehensive exam is a pass rate of 95%.”

Please attach a sample of rubrics, survey instruments, rating scales, or other tools used to measure outcomes, if available.

Column 3 — Assessments Results and Analysis in Relation to Performance Targets

This section of the report should describe the results of each of the assessments conducted during the past year, aggregated across the program. Summarize the quantitative data; report qualitative data by describing the major themes identified. Detailed reports of assessment findings can be attached, but are not required. Do not send individual student results.

Include a brief analysis of the results such as:

- "The master’s comprehensive exam pass rate has been 90% over the past three years, only slightly below our target of 95%. The two students who failed the exam both had difficulties with the questions related to statistical methods and research design. Even among the students who passed the exam, responses to the research design question, while acceptable, were somewhat weak in relation to the strong performance observed across all other topics covered.”

- "Field supervisor ratings of student internship performance (on a 5.0 scale with 1=poor and 5=exemplary) in 2014-15 and 2015-16 averaged 4.8 on critical thinking skills, 4.2 on application of theory to practice, 4.0 on use of data to drive decisions, and 3.8 on
professional behavior, the only area in which ratings fell below the 4.0 target level. Follow-up focus
groups with field supervisors revealed that students seemed uncertain about how to respond research
subjects’ complaints.”

Even if your data are incomplete or difficult to aggregate, report what you have. Avoid vague statements like:
“Most students do fine.”

Column 4 — Descriptions of Program Improvements and Enhancements Made in
Response to Results

THIS IS THE MOST IMPORTANT PART OF THE ANNUAL
ASSESSMENT REPORT. Use this section to document how the
results of the assessments have been reviewed by faculty and used to
improve the program.

- The responses in this section should correspond to the results
  reported and related issues. They should describe actions
  taken or improvements initiated that extend beyond
  correcting problems.

- Program improvements should be reported in the past tense,
  unless they are part of a long-term project being
  implemented over many years. In that case, report
  improvements implemented to date, progress made in the
  past year, and those currently underway.

- If the assessment results are very recent, describe any actions
  plans for using the results.

Examples of program improvements and enhancements that might be
reported in response to the findings in the examples above include:

- “A review of the 2 students who failed the comprehensive exams revealed that both had little research
  exposure as undergraduates and had struggled in the master’s level skill courses. Entering students
  without strong backgrounds in statistics and research design are now required to take STAT 501 and RESX
  550 their first term. To improve knowledge of research design, an assignment requiring students to
  critique research proposals was integrated into RESX 751. 100% of students passed spring 2016 comps
  with no systematic weaknesses observed.”

- “To better prepare students for their field placement, a workshop was developed and offered in fall 2013
to introduce students to practical and ethical dilemmas that arise when working with public agency
clients. Supervisor feedback indicated an improvement in students’ communication skills with clients, and
students rated the workshops as a valuable professional development activity.”

Q&A About Reporting on Improvements

Question: Suppose our assessment yielded data that are unreliable or too small to analyze?

Suggestion: Describe the data that you have and what it suggests, and indicate its limitations.

Question: What if we realize that we’re not collecting data that we need to assess a particular outcome?

Suggestion: The improvements you report might be plans to revise the assessment methodology,
for example, developing a better database of alumni records, switching from a quantitative to a
qualitative approach to gathering evidence, creating a new way of sampling senior-level papers to review and rate, etc.

**Question:** Suppose our results are all very positive? Our program and our students are all top-notch and failures are rare.

**Suggestions:**

- **The goal of outcomes assessment is continuous improvement.** If students met the target and there are no deficiencies to address, you might describe how you have enhanced the student experience in a related area. For example, one program reported that 100% of its students authored or co-authored a publication before graduation, a metric used to assess a learning outcome related to research. The faculty reported the following under improvements: “Our targets for student publications have been met for the past two years. To provide students with additional opportunities to promote their development as researchers, we have added workshops on grant writing.”

- **If students met or exceeded the target for a given outcome, and no changes are needed or even possible in response to the findings, it is fine to just say something like:** “Students continue to meet or exceed the target for this outcome, confirming that the program is preparing them well in this area.” Try not to say this repeatedly; accreditation reviewers are skeptical of claims that there is “no need for improvement.”

- **Improvements don’t have to be major, they don’t have to impact all students, and they don’t have to be curriculum-related.** Small changes to processes or communications that help support student success can be reported.

- **Positive assessment findings might serve to validate decisions made to improve the program some time earlier. For example:** “These findings are evidence that the modifications we made to the curriculum to better prepare graduates for global positions have been effective.”

**Other Program Goals and Metrics Tracked, Results, and Improvements**

Enter examples of other metrics that the program tracks on a regular basis to measure academic quality in addition to student learning outcomes. Examples might be completion rates, time-to-degree, diversity, student participation in study abroad or out of class research experiences, or goals set during strategic planning or Program Review such as adding faculty to extend coverage of the curriculum.

**Additional Improvements and Enhancements Made as Part of Continuous Quality Improvement Efforts**

Use this section to give examples of other changes and enhancements that have been important in this program’s continuous improvement efforts in recent years. It addresses another frequently asked question:

*We’ve made a lot of positive changes in our program in recent years that demonstrate our commitment to continuous improvement, but not all were made in response to learning outcomes assessment results. How do I convey that in our report?*
Provide examples of any other program improvements and enhancements not already described in this report. Include the rationale for the change.

Examples include:

- Implementation of plans you described in the last assessment report (under “Use of Results to Improve the Program”). For example, if you reported that a course would be changed to help students achieve an outcome, then this is the place to report that the course modification was actually made and whether it appears to be successful or not.

- Progress on long-term improvement projects such as curriculum redesigns, policy changes and implementations, development of student services, international experiences, etc.

- Improvements in response to recommendations from Program Review or accreditation reviews, external changes in professional standards, or recognition of new skills students need for today’s job market.

FOR MORE INFORMATION OR ASSISTANCE

Outcomes Assessment Report Template and Sample Reports:


Assessment Resources, including Rubrics:

http://oira.unc.edu/institutional-effectiveness/unit-level-assessment/assessment-resources/

Questions or assistance with completing assessment reports or revising assessment plans, please contact:

Dr. Bryant Hutson, Interim Director of Assessment  
bhutson@email.unc.edu

Dr. Lynn Williford, Assistant Provost for Institutional Research & Assessment  
lynn_williford@unc.edu, 919-962-1339
Appendix A
UNC-Chapel Hill’s Policy on Outcomes Assessment of
Academic Programs and Non-Instructional Unit Outcomes
UNIVERSITY POLICY

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
POLICY ON ASSESSMENT OF ACADEMIC PROGRAMS
AND NON-INSTRUCTIONAL UNIT OUTCOMES

Introduction

PURPOSE

Consistent with its mission statement, UNC-Chapel Hill embraces “…an unwavering commitment to excellence” and as such is committed to continuous improvement informed by assessment of institutional effectiveness across all areas and levels. In addition to institution-level planning and evaluation, assessment of the outcomes of academic programs and non-instructional units is required by the University’s regional accreditor, the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

The purpose of this policy is to articulate requirements for assessment of outcomes and use of results for improvement purposes in academic and non-academic units and to specify the roles and responsibilities for implementing and overseeing assessment processes to ensure compliance with this policy and with the requirements of SACSCOC.

This policy replaces “UNC-Chapel Hill Guidelines for Student Learning Outcomes Assessment” approved by the Executive Vice Chancellor and Provost in 2004 and last revised and approved in 2007, and codifies existing practices for assessment in non-instructional units.

SCOPE OF APPLICABILITY

This policy applies to the following types of programs and units at UNC-Chapel Hill:

- Academic degree major and stand-alone certificate programs (undergraduate, graduate, and professional);
- Administrative units that deliver institutional services;
- Academic and student support units that deliver institutional services;
- Units with a primary focus on conducting or supporting research;
- Units with a primary focus on delivering or supporting public service/engagement;
- Schools, for assessment of internal support services and school-wide research and public service/engagement outcomes.
Policy

Policy Requirements

UNC-Chapel Hill’s outcomes assessment process requires programs or units to articulate expected outcomes that should occur as a result of their primary work – whether that involves enhancing student learning and educational program quality, research, public engagement, academic and student support services, or administrative operations – and then to measure their success and make improvements based on the results.

The University requires academic programs and non-academic units defined above to prepare and submit the following to the Executive Vice Chancellor and Provost, through their respective deans or vice chancellors:

- An assessment plan that contains a mission statement; expected outcomes (that include student learning outcomes for educational programs); appropriate evaluation methods or metrics to assess these outcomes; and performance targets.

- An annual assessment report describing assessments conducted, findings, analysis of results, and a description of how the results have been used to make improvements in the program or unit.

These assessment plans and annual reports are required in addition to any other evaluation-related reporting obligations, such as those for Program Review, specialized accreditation, administrator reviews, five-year reviews of centers and institutes, and sponsored research.

Standards and Procedures for Outcomes Assessment

Each plan and report must meet standards that address required elements and appropriate assessment methodology developed from best practices for assessment of institutional effectiveness in higher education. These standards, as well as procedures for reporting, submission timelines, and review and approval processes, are described in the “Standards and Procedures Related to the Policy on Assessment of Academic and Non-Academic Units” document available on the website of the Office of Institutional Research and Assessment (http://oira.unc.edu/institutional-effectiveness/).

Roles and Responsibilities

The Executive Vice Chancellor and Provost has overall responsibility and oversight for outcomes assessment processes for academic program and non-instructional units.

Deans and vice chancellors are responsible for ensuring that all of the academic programs and non-instructional units within their respective organizations have assessment plans, carry out assessments that meet prescribed standards, and submit annual reports that document improvements made based on assessment results.
Each dean and vice chancellor will appoint one or more Assessment Coordinators to manage internal assessment process and to serve as liaisons to the Office of Institutional Research and Assessment. Coordinators of academic program assessment must be full-time faculty members. Assessment Coordinators will be responsible for collecting and reviewing assessment plans and reports, providing feedback to faculty and staff to improve the quality of their assessments, and providing the plans and reports to the dean or vice chancellor for approval prior to submission to the Executive Vice Chancellor and Provost. Assessment Coordinators must participate in periodic training and professional development activities sponsored by the Office of the Executive Vice Chancellor.

The Office of Institutional Research and Assessment will offer training and consultation to Assessment Coordinators and program faculty about effective assessment practices. They will publish the annual calendar of due dates for plans and reports and provide templates and other assessment resources through their website. In addition to maintaining a central repository for assessment plans and reports, they will also review these documents for compliance with standards, provide feedback to Assessment Coordinators on necessary changes, and report to the Executive Vice Chancellor and Provost concerning policy compliance and opportunities for process improvement.

**Definitions**

**Academic Program:** A formal course of study that leads to a degree or a stand-alone certificate.

**Non-Instructional Unit:** An organization with a mission that does not include offering credit-bearing courses that lead to a degree or certificate but instead provides services and operational support in fulfillment of the University’s mission.

**Outcomes:** Statements that describe what should occur as a result of a program or unit’s work. Outcomes are often synonymous with goals and objectives; however, they are typically focused on the quality and impact of the unit’s work as opposed to completion of tasks.

**Student Learning Outcomes:** Statements that describe what students should know, think and be able to do upon completion of an academic program.

**Assessment Plan:** A document that articulates the program or unit’s mission, the intended outcomes of its work, methods to be used to measure these outcomes, and targets for determining success.

**Assessment Report:** An annual report from a program or unit that describes the outcomes measured during the past year, the findings from those assessments, and how the results were used to make decisions and improvements.
Policy Title:  Policy on Outcomes Assessment in Academic and Non-Academic Units
Effective Date: March 1, 2017
Last Revised: N/A

Related Requirements

EXTERNAL REGULATIONS AND CONSEQUENCES
This policy was developed to ensure UNC-Chapel Hill’s continued compliance with the Southern Association of Colleges and Schools Commission on Colleges Principles of Accreditation, Comprehensive Standard 3.3.1, Institutional Effectiveness, page 27. http://www.sacscoc.org/pdf/2012PrinciplesOfAccreditation.pdf. The consequences of failure to comply with SACSCOC requirements include sanctions and possible loss of accreditation.

UNIVERSITY STANDARDS AND PROCEDURES
See “Standards and Procedures Related to the Policy on Assessment of Academic and Non-Academic Units” on the website of the Office of Institutional Research and Assessment (http://oira.unc.edu/institutional-effectiveness/).

Contact Information

POLICY CONTACTS
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Dr. Lynn Williford
Assistant Provost for Institutional Research and Assessment, SACSCOC Liaison
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Important Dates

- Effective Date and title of Approver: March 1, 2017. Approved by Executive Vice Chancellor and Provost.
- Replaces “UNC-Chapel Hill Guidelines for Student Learning Outcomes Assessment” approved by the Executive Vice Chancellor and Provost in 2004 and last revised and approved in 2007.
Appendix B

UNC-Chapel Hill’s Outcomes Assessment Report
### Mission

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<th>School:</th>
<th>Department:</th>
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<th>Degree/Major:</th>
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### Responsibility for Assessing Outcomes and Reviewing Results:

Committee or persons charged with program assessment, meet regularly to review student performance and curriculum issues, and make recommendations or decisions about program improvements.

### Report on Expected Student Learning Outcomes, Assessment Methods, Results, and Improvements

(add rows as needed)

<table>
<thead>
<tr>
<th>Expected Student Learning Outcomes</th>
<th>Assessment Methods Used and Performance Targets</th>
<th>Assessment Results and Analysis in Relation to Performance Targets</th>
<th>Descriptions of Program Improvements and Enhancements Made or Other Actions Taken in Response to These Results</th>
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</table>
**Other Program Goals and Metrics Tracked, Results, and Improvements:** Metrics the program tracks on a regular basis to measure other aspects of academic program quality besides student learning, such as completion rates, time-to-degree, diversity, etc. (add rows as needed)

<table>
<thead>
<tr>
<th>Program Goal</th>
<th>Metrics or Assessment Methods Used and Performance Targets</th>
<th>Results in Relation to Performance Targets</th>
<th>Descriptions of Program Improvements and Enhancements Made in Response to These Results</th>
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**Additional Program Changes and Enhancements Made as Part of Continuous Quality Improvement Efforts**

Please use this section to provide examples of any other program improvements and enhancements not described above. Include the rationale for the change. Examples might include:

- Implementation of plans for improvement described in the last assessment report (under “Use of Results to Improve the Program”).
- Progress on long-term improvement projects such as curriculum redesigns, policy changes and implementations, development of student services, international experiences, etc.
- Improvements made in response to recommendations from Program Review or professional accreditation reviews, external changes in professional standards, or recognition of new skills students need for today’s job market.
For assistance with this report, please contact Lynn Williford, Institutional Research & Assessment, lynn_williford@unc.edu
Appendix C

Action Verbs That Can Be Used in Writing
Learning Outcomes Statements

From Bloom’s Taxonomy (Revised)*

<table>
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<th>Definitions</th>
<th>I. Remembering</th>
<th>II. Understanding</th>
<th>III. Applying</th>
<th>IV. Analyzing</th>
<th>V Evaluating</th>
<th>VI. Creating</th>
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<tbody>
<tr>
<td>Bloom’s Definition</td>
<td>Exhibit memory of previously learned material by recalling facts terms, basic concepts, and answers.</td>
<td>Demonstrate Understanding of facts and ideas by organizing, comparing, translating interpreting, giving descriptions, and starting main ideas.</td>
<td>Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.</td>
<td>Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.</td>
<td>Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.</td>
<td>Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.</td>
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<td>Explain</td>
<td>Interpret</td>
<td>Judge</td>
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<td>Justify</td>
<td>Measure</td>
<td>Prioritize</td>
<td>Prove</td>
<td>Rate</td>
<td>Recommend</td>
<td>Support</td>
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<td>Adapt</td>
<td>Build</td>
<td>Change</td>
<td>Compose</td>
<td>Construct</td>
<td>Create</td>
<td>Design</td>
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<tr>
<td>Develop</td>
<td>Discuss</td>
<td>Estimate</td>
<td>Formulate</td>
<td>Improve</td>
<td>Invent</td>
<td>Maximize</td>
</tr>
<tr>
<td>Minimize</td>
<td>Modify</td>
<td>Originate</td>
<td>Plan</td>
<td>Predict</td>
<td>Propose</td>
<td>Solve</td>
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<tr>
<td>Test</td>
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</tbody>
</table>


Note: Avoid vague terms such as “become familiar with,” “learn about,” and “appreciate,” which are difficult to measure.
## Appendix D

### Methods of Assessing Student Learning at the Program Level

<table>
<thead>
<tr>
<th>Direct Methods (Required)</th>
<th>Indirect Methods (Use to Supplement Direct Methods)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Written comprehensive examinations</td>
<td>• Student self-assessments of learning gains</td>
</tr>
<tr>
<td>• Certification or licensure examinations</td>
<td>• Exit interviews/surveys</td>
</tr>
<tr>
<td>• Standardized tests</td>
<td>• Alumni surveys</td>
</tr>
<tr>
<td>• Research paper reviews and ratings</td>
<td>• Employer surveys</td>
</tr>
<tr>
<td>• Capstone project evaluations</td>
<td>• Student satisfaction surveys</td>
</tr>
<tr>
<td>• Internship performance evaluations by supervisors</td>
<td>• Job placement of graduates</td>
</tr>
<tr>
<td>• Research project performance</td>
<td>• Focus group discussions</td>
</tr>
<tr>
<td>• Clinical skills assessments</td>
<td>• Graduate school acceptance rates (for undergraduate programs)</td>
</tr>
<tr>
<td>• Portfolio evaluations</td>
<td>• Alumni honors, awards, and achievements</td>
</tr>
<tr>
<td>• Oral presentation evaluations</td>
<td>• Faculty committee annual reviews of individual student achievement and progress through the program with discussions of implications for program.</td>
</tr>
<tr>
<td>• Performances and exhibits rated by experts</td>
<td></td>
</tr>
<tr>
<td>• Thesis/dissertation evaluations</td>
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</tr>
<tr>
<td>• Oral defenses of thesis/dissertation</td>
<td></td>
</tr>
<tr>
<td>• Students’ professional achievements: publications, conference presentations, grants and competitive fellowships received</td>
<td></td>
</tr>
</tbody>
</table>

### Methods that Generally **Do Not** Measure Student Learning But Might Provide Useful Feedback for Improving Processes that Support Learning

- **Course evaluations** – Typically measure student perceptions of instructor effectiveness, course materials, learning activities, overall satisfaction that provide feedback for improving the individual course experience.
  
  **Note:** Items that ask students to assess how the course contributed to their gains in the knowledge or skills related to the program’s learning outcomes may be used as indirect evidence of learning.

- **Course grades** – Individual instructor grading criteria and standards might not be equivalent across courses; grades sometimes include attendance or other factors that do not measure achievement of specific learning outcomes.
  
  **Exceptions:** When the curriculum is mapped so that individual courses are identified as the place where students will demonstrate a specific program-level learning outcome or competency, average course grades could possibly be used as evidence. Grades should be based on evaluations of specific assignments or performances that directly measure the outcome.

- **Reviews of course syllabi or analysis of course-taking patterns** – These do not measure learning but help confirm that students are being exposed to the subject matter and experiences that should result in the program-level outcomes.

- **Do not report as learning assessment measures** – Average GPAs or completion of the number of courses required for the major with a minimum grade, etc.