OVER THE PAST 20 years, interest in assessment of student outcomes has grown dramatically. Internal and external pressures for accountability and continuous improvement in higher education have underscored the need for processes to measure and document student learning. Learning outcomes are crossing traditional disciplines and professional programs, engaging faculty and students in collaboration toward achieving common goals. As a result of a shift from teaching factories to learning communities, assessment has changed from a collection of episodic monitoring processes to a systematic examination of reflection and continuous improvement that is driven by student learning. The purpose of this column is to introduce and define key terms used in the assessment process and to provide a step-by-step basic model of a program-assessment plan.

Assessment of student learning occurs at numerous levels: individual student, course, program, and college or university. Program assessment is a “comprehensive, systematic process that defines goals for student learning and then provides evidence or data indicating that a program has achieved these goals.” The cornerstones of program assessment are the missions of the institution and individual programs. The mission of the program should be at the forefront when one is developing a program-assessment plan.

Program assessment reviews the curriculum as a whole, instead of assessing individual courses. The assessment plan reflects the terminal objectives of the program, accreditation or approval guidelines, and the strategic plan of the program and college or university. Physical, financial, and personnel resources are assessed in regard to how they affect student learning, and the data identify changes that might be needed.

A program-assessment plan can get overwhelming, so one needs to make sure the plan is reasonable considering faculty and program resources.

Steps in Developing an Assessment Plan

The first step in program assessment is developing goals for student learning. These goals should include both formative and summative learning outcomes (LOCs). Formative LOCs are those that are assessed during a student’s matriculation through the program, and summative LOCs are assessed at the conclusion of the program. See the sidebar for some definitions. After student-learning outcomes are identified, performance indicators (PIs) for each LOC should be determined.

Step 2 involves selecting measures to provide data regarding students’ knowledge, skills, and abilities related to the LOCs. These measures should include both direct and indirect measures. Direct measures demonstrate student knowledge or what they can do with that knowledge. Case studies, clinical performance, and exams are examples of direct measures. Indirect measures are a reflection of learning. Examples of indirect measures include focus groups and employer surveys. As a result of learning occurring over time, and at different time periods for various students, it is suggested that multiple methods of both direct and indirect measures be used to assess PIs and LOCs. After the PIs are determined, instruments used to measure the performance indicators or LOCs must be identified or developed.

Step 3 requires the athletic training faculty to determine criteria or benchmarks for each LOC based on the instruments used to measure the PIs. For example, if a senior-satisfaction survey (Likert scale) is going to
be used as a measurement for a LOC, the faculty must determine what level of student satisfaction indicates that the LOC has been met. An example of a benchmark for a senior-satisfaction survey could be that 80% of graduating seniors will be satisfied with their academic and clinical preparation, academic advise-ment, and ancillary components of the athletic training education program.

Step 4 involves collecting and analyzing results of the PIs or LOCs. Data are summarized, averaged, and trended. The results are then reported to faculty, students, and administration.

How a program uses assessment data or evidence to improve student learning is often an overlooked facet of the assessment process. This process is commonly referred to as “closing the loop” and is Step 5 of the assessment plan. Closing the loop ensures that programs use assessment data when making curricu-lar changes. This is the ultimate purpose of program assessment—to improve student learning and the learning environment. Table 1 provides an example of an assessment plan.

### Closing the Loop

Assessment does not end with the data collection and closing the loop. The process is cyclic (continuous loop) with data being collected, analyzed, and trended to indicate if changes are needed in the athletic training education program. The data might identify additional areas that need to be assessed or suggest changes in the tools to obtain more accurate data. The assessment plan and process should be fluid and dynamic. Trended data can provide an ongoing perspective on the program that is most useful during program review and the accreditation process. Program-assessment data provide evidence for athletic training education programs to use to enhance the quality of educational experiences for students.

### Summary

In summary, program assessment is a comprehensive approach that holds programs accountable for student-learning outcomes and provides for quality assurance. A plan that is assessed on an annual basis with documenta-tion of trended data will help a program enhance student-centered experiences and provide assessment information for the accreditation process.