

CAPSTONES

Rubric for Assessing the Use of Capstone Experiences for Assessing Program Learning Outcomes

Criterion	Initial	Emerging	Developed	Highly Developed
Relevant Outcomes and Lines of Evidence Identified	It is not clear which program outcomes will be assessed in the capstone course.	The relevant outcomes are identified, e.g., ability to integrate knowledge to solve complex problems; however, concrete plans for collecting evidence for each outcome have not been developed.	Relevant outcomes are identified. Concrete plans for collecting evidence for each outcome are agreed upon and used routinely by faculty who staff the capstone course.	Relevant evidence is collected; faculty have agreed on explicit criteria statements, e.g., rubrics, and have identified examples of student performance at varying levels of mastery for each relevant outcome.
Valid Results	It is not clear that potentially valid evidence for each relevant outcome is collected <u>and/or</u> individual faculty use idiosyncratic criteria to assess student work or performances.	Faculty have reached general agreement on the types of evidence to be collected for each outcome; they have discussed relevant criteria for assessing each outcome but these are not yet fully defined.	Faculty have agreed on concrete plans for collecting relevant evidence for each outcome. Explicit criteria, e.g., rubrics, have been developed to assess the level of student attainment of each outcome.	Assessment criteria, such as rubrics, have been pilot-tested and refined over time; they usually are shared with students. Feedback from external reviewers has led to refinements in the assessment process, and the department uses external benchmarking data.
Reliable Results	Those who review student work are not calibrated to apply assessment criteria in the same way; there are no checks for inter-rater reliability.	Reviewers are calibrated to apply assessment criteria in the same way <u>or</u> faculty routinely check for inter-rater reliability.	Reviewers are calibrated to apply assessment criteria in the same way, <u>and</u> faculty routinely check for inter-rater reliability.	Reviewers are calibrated, and faculty routinely find assessment data have high inter-rater reliability.
Results Are Used	Results for each outcome may or may not be collected. They are not discussed among faculty.	Results for each outcome are collected and may be discussed by the faculty, but results have not been used to improve the program.	Results for each outcome are collected, discussed by faculty, analyzed, and used to improve the program.	Faculty routinely discuss results, plan needed changes, secure necessary resources, and implement changes. They may collaborate with others, such as librarians or Student Affairs professionals, to improve results. Follow-up studies confirm that changes have improved learning.
The Student Experience	Students know little or nothing about the purpose of the capstone or outcomes to be assessed. It is just another course or requirement.	Students have some knowledge of the purpose and outcomes of the capstone. Communication is occasional, informal, left to individual faculty or advisors.	Students have a good grasp of purpose and outcomes of the capstone and embrace it as a learning opportunity. Information is readily available in advising guides, etc.	Students are well-acquainted with purpose and outcomes of the capstone and embrace it. They may participate in refining the experience, outcomes, and rubrics. Information is readily available.

How Visiting Team Members Can Use the Capstone Rubric

Conclusions should be based on discussion with relevant department members (e.g., chair, assessment coordinator, faculty). A variety of capstone experiences can be used to collect assessment data, such as:

- courses, such as senior seminars, in which advanced students are required to consider the discipline broadly and integrate what they have learned in the curriculum
- specialized, advanced courses
- advanced-level projects conducted under the guidance of a faculty member or committee, such as research projects, theses, or dissertations
- advanced-level internships or practica, e.g., at the end of an MBA program

Assessment data for a variety of outcomes can be collected in such courses, particularly outcomes related to integrating and applying the discipline, information literacy, critical thinking, and research and communication skills.

The rubric has five major dimensions:

1. **Relevant Outcomes and Evidence Identified.** It is likely that not all program learning outcomes can be assessed within a single capstone course or experience. Questions: Have faculty explicitly determined which program outcomes will be assessed in the capstone? Have they agreed on concrete plans for collecting evidence relevant to each targeted outcome? Have they agreed on explicit criteria, such as rubrics, for assessing the evidence? Have they identified examples of student performance for each outcome at varying performance levels (e.g., below expectations, meeting, exceeding expectations for graduation)?
2. **Valid Results.** A valid assessment of a particular outcome leads to accurate conclusions concerning students' achievement of that outcome. Sometimes faculty collect evidence that does not have the potential to provide valid conclusions. For example, a multiple-choice test will not provide evidence of students' ability to deliver effective oral presentations. Assessment requires the collection of valid evidence and judgments about that evidence that are based on well-established, agreed-upon criteria that specify how to identify low, medium, or high-quality work. Questions: Are faculty collecting valid evidence for each targeted outcome? Are they using well-established, agreed-upon criteria, such as rubrics, for assessing the evidence for each outcome? Have faculty pilot tested and refined their process based on experience and feedback from external reviewers? Are they sharing the criteria with their students? Are they using benchmarking (comparison) data?
3. **Reliable Results.** Well-qualified judges should reach the same conclusions about individual student's achievement of a learning outcome, demonstrating inter-rater reliability. If two judges independently assess a set of materials, their ratings can be correlated. Sometimes a discrepancy index is used. How often do the two raters give identical ratings, ratings one point apart, ratings two points apart, etc.? Data are reliable if the correlation is high and/or if the discrepancies are small. Raters generally are calibrated ("normed") to increase reliability. Calibration usually involves a training session in which raters apply rubrics to pre-selected examples of student work that vary in quality, then reach consensus about the rating each example should receive. The purpose is to ensure that all raters apply the criteria in the same way so that each student's product receives the same score, regardless of rater. Questions: Are reviewers calibrated? Are checks for inter-rater reliability made? Is there evidence of high inter-rater reliability?
4. **Results Are Used.** Assessment is a process designed to monitor and improve learning, so assessment findings should have an impact. Faculty should reflect on results for each outcome and decide if they are acceptable or disappointing. If results do not meet faculty standards, faculty should determine which changes should be made, e.g., in pedagogy, curriculum, student support, or faculty support. Questions: Do faculty collect assessment results, discuss them, and reach conclusions about student achievement? Do they develop explicit plans to improve student learning? Do they implement those plans? Do they have a history of securing necessary resources to support this implementation? Do they collaborate with other campus professionals to improve student learning? Do follow-up studies confirm that changes have improved learning?

The Student Experience. Students should understand the purposes different educational experiences serve in promoting their learning and development and know how to take advantage of them; ideally they should also participate in shaping those experiences. Thus it is essential to communicate to students consistently and include them meaningfully. Questions: Are purposes and outcomes communicated to students? Do they understand how capstones support learning? Do they participate in reviews of the capstone experience, its outcomes, criteria, or related activities?