

Mapping Student Learning Outcomes

After a department has created or confirmed the learning outcomes that are appropriate for its program, the next step is to map the outcomes onto the curriculum. Mapping (also called “charting”) outcomes allows the department to identify which courses address each of the learning outcomes. This activity is useful for communicating where within the curriculum learning outcomes are introduced, practiced, and mastered. Generally, learning outcomes are introduced in lower level courses and then further developed in courses that occur later in students’ careers. This process allows departments to ensure that the entire curriculum offers students sufficient opportunity to develop the knowledge and skills associated with each of its outcomes.

A curriculum map consists of a table with two axes; one axis lists program outcomes, and the other lists courses in the major.

Student Learning Outcomes	Course 1	Course 2	Course 3	Course 4	Course 5
Outcome A	X		X	X	X
Outcome B	X		X	X	
Outcome C			X	X	
Outcome D	X			X	
Outcome E					
Outcome F	X				

The basic grid is then filled in by marking where the learning outcomes for the program are embedded within the courses. This mapping process indicates if an outcome is addressed within a course. The map may identify gaps in the form of outcomes that are not specifically included in any courses (Outcome E) or courses that do not include any of the outcomes critical to the major (Course 2).

When mapping outcomes, it is a good practice to take the opportunity and go a step further to indicate the degree to which the learning outcomes are emphasized within each of the courses. In order to provide information about the types of learning opportunities students are receiving, determine appropriate descriptors, such as, “low” (L), “medium” (M), and “high” (H) or “introduced” (I), “developed” (D), and “mastered” (M). Then, indicate the outcomes that are part of each class and the emphasis placed on each outcome.

The grid below shows which courses are required or elective, where the learning outcomes are embedded within the curriculum, and the extent to which each course addresses the outcomes.

Student Learning Outcomes	Course 1 (Required)	Course 2 (Elective)	Course 3 (Required)	Course 4 (Required)	Course 5 (Elective)
Outcome A	I		D	M	M
Outcome B	I		D	M	
Outcome C			I	D	
Outcome D	I			M	
Outcome E					
Outcome F	I				

This map shows how much emphasis is given to each outcome. In this example, Outcome A is embedded in almost every course with clear development throughout the curriculum, whereas Outcome F is introduced in Course 1 but not addressed in any later courses.

Curriculum mapping allows a department to look ahead as it thinks about the amount and types of opportunities for students to develop the knowledge and skills required for majors, as well as the academic paths students might be advised to follow through the curriculum. It also aids in determining where within the curriculum different learning outcomes can be assessed by helping the department determine where assessments of student learning make the most sense. A department may want to assess Outcome A in Course 1 and in Course 4 to get a sense of development. Alternatively, a department may wish to assess outcomes A through D near the end of the program—in course 4—to determine students' level of mastery as they leave the program.