

Curriculum Mapping/Matrix

1. What is it? Why do It?

The curriculum map is a process to align desired goals and program outcomes, and explore what is taught and how.

2. Why use curriculum maps?

Curriculum maps can be used for many aspects of assessment planning and implementation:

- Ensure that all courses and experiences contribute to the student learning outcomes (i.e., there are no blank columns).
- Ensure that all outcomes are mastered at some point in the program (i.e., each row has at least one M).
- Ensure that the curriculum progresses (i.e. effective sequencing of I to R to M).
- Ensure that the curriculum is balanced (i.e. outcomes strategically addressed in courses rather than assuming all outcomes are addressed in every course).
- Assist faculty members (including adjuncts) understand how his/her course fits with the program.
- Identify courses/experiences in which assessment measures can be developed and administered.
- Provide students with a roadmap for their course of study.
- Encourage students to maintain focus on important learning outcomes and take responsibility for their own learning.
- Serve as a tool for long-term scheduling of courses and experience.

3. How is a curriculum map created?

1. Start with a blank matrix.
2. In the first column, enter all program-level student learning outcomes.
3. In the second shaded row, enter the course numbers of core courses as well as information on other required experiences that address those outcomes.
4. Using information from course syllabi, program proposals, program reviews, course prerequisites, and the like to determine where outcomes are addressed throughout the program
5. Categorize each of these courses/ experience as: "I", "R", "M", "A".
6. Faculty members analyze the curriculum map. They discuss and revise so that each outcome is introduced, reinforced/practiced, and then mastered. In addition, each outcome should have a "A" to indicate that evidence can be collected for program-level assessment.

4. What does a curriculum map look like?

A curriculum map is a table with one column for each course and one row for each learning outcome (or vice versa).

Key: “I”=introduced; “R”=reinforced and opportunity to practice; “M”= mastery at the senior or exit level; “A”=outcome assessment

- “I” if it involves introduction to the knowledge/competency
- “R” if it involves reinforcement and further development of the knowledge/competency
- “M” if it involves mastery of the knowledge/competency
- “A” evidence collected for program level assessment

Example from Hypothetical Biology Curriculum Matrix

Student Learning Outcomes	BIOL 130	BIOL 230	BIOL 304	BIOL 400	BIOL 480
Apply the Scientific Method	I	R	R	M, A	
Perform Laboratory Techniques	I	R	M, A		
Explain How Scientific Inquiry is Discovered and Validated		I	R	M, A	
Summarize a Phenomena in the Natural World		I	R	M, A	A

Strength of map:

- All outcomes are mastered
- All courses contribute to at least one outcome
- There is a progression from I to R to M to A

5. Best Practices in Curriculum Mapping

- The program curriculum map should reflect consensus of the faculty who are teaching in the program. Multiple instructors of the same course should agree on which outcomes are addressed in that course.
- Publish the completed map to faculty and students.
- Mapping should allow programs to justify each course in their curriculum. All courses, required and elective, across all tracks, should relate to one or more student learning outcomes.
- Is the program trying to do too much? Eliminate outcomes that are not highly-valued and focus on the highly-valued ones, strengthening the curriculum to address those outcomes more thoroughly.
- The curriculum map should be revisited during assessment cycle, making changes as disciplines evolve.

Sources Consulted:

National Institute for Learning Outcomes Assessment (NILOA) Curriculum Mapping Toolkit.

<https://www.marquette.edu/assessment/documents/Curriculummapping-Notesforparticipants.pdf>