Curriculum Mapping Guide

Adapted from Rochester Institute of Technology Office of Educational Effectiveness: https://www.rit.edu/academicaffairs/outcomes/curriculum-mapping

What does a curriculum map look like?

It's a table with one column for each learning outcome and one row for each course or required event/experience (or vice versa: each row contains a course and each column lists a learning outcome). The following is an excerpt from hypothetical biology program curriculum map.

Key: "I"=Introduced; "R"=reinforced and opportunity to practice; "M"=mastery at the senior or exit level; "A"=assessment evidence collected

Courses and Experiences	Program Learning Outcomes			
	Apply the scientific method	Develop laboratory techniques	Diagram and explain cellular processes	Awareness of careers and job opportunities
BIOL 101	I	I		I
BIOL 202	R	R	I	
BIOL 303	R	M, A	R	
BIOL 404	M, A		M, A	R
Exit interview				A

How is a curriculum map created?

Step 1: Faculty members begin with:
- the program's intended student learning outcomes
- recommended and required courses
- other required events/experiences (e.g., internships, research, co-op)

Step 2: Create the "map" in the form of a table (see option provided).

Step 3: Enter the student learning outcomes and courses and events/experiences into the map that currently address those outcomes.

Step 4: Enter an indicator of level for each learning outcomes and course/experience
- "I" indicates students are **introduced** to the outcome
- "R" indicates the outcome is **reinforced** and students have opportunities to practice
- "M" indicates students have had sufficient practice and now demonstrate **mastery**
- "A" indicates where evidence might be collected and evaluated for program-level assessment (collection might occur at the beginning and end of the program if

comparisons across years are desired).

Step 5: 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 at least one "A" to indicate that evidence can be collected for program-level assessment. Not every outcome is assessed every semester, the timeline for collection will be indicated on the assessment plan.

What are some curriculum mapping best practices?
- Build in practice and multiple learning trials for students: introduce, reinforce, master. Students perform best if they are introduced to the learning outcome early in the curriculum and then given sufficient practice and reinforcement before evaluation of their level of mastery takes place.
- Use the curriculum map to identify the learning opportunities (e.g., assignments, activities) that produce the program's outcomes.
- Allow faculty members to teach to their strengths (each person need not cover all outcomes in a single course). "Hand off" particular outcomes to those best suited for the task.
- Ask if the program is trying to do too much. Eliminate outcomes that are not highly-valued and then focus on highly-valued outcomes by including them in multiple courses. (The eliminated outcomes can still be course-level outcomes)
- Set priorities. Everyone working together toward common outcomes can increase the likelihood that students will meet or exceed expectations.
- Communicate: Publish the curriculum map and distribute to students and faculty. Each faculty member can make explicit connections across courses for students. For example, at the beginning of the course or unit, a faculty member can remind students what they were introduced to in another course and explain how the current course will have them practice or expand their knowledge. Students do not always make those connections by themselves.

Curriculum Map Template (add rows or columns as needed)

LEARNING OUTCOMES (I = Introduce; R = Reinforce; M = Mastery and A = Assessment Opportunity)	REQUIRED COURSES and EXPERIENCES										
SLO1											
SLO2											
SLO3											
SLO4											
SLO5											

Sample Curriculum Map

	REQUIRED COURSES

(I = Introduce; R = Reinforce; M = Mastery and A = Assessment Opportunity)	101	102	201	220	250	301	302	303	401	402	435	490
Demonstrate communication skills appropriate to field.	I				I	M			R		M	M, A
Demonstrate knowledge of historic and global contexts.	I	I	R								R,A	
Demonstrate knowledge of biological bases of behavior.		I			R	R	M, A					
Outline major ideas behind X perspective.	I	I	R		R,A							
Distinguish between major tests and choose appropriate tests for specific situations.	I	A								R		M
Develop original research question that builds on an existing body of knowledge.	I	R		R			R					M, A
Select methodology appropriate to a research question.						I			R, A			M
Document references and cite in correct style.						I	I	I	R		M	M, A
Demonstrate understanding of ethical principles.	I			R, A					R			M
Evaluate real world examples by applying critical thinking skills.	I	I	R	R	R	R	R	R	M	R, A		M