Curriculum Mapping

With learning outcome statements in place, a course, program, or institution can then be aligned, or mapped, to those outcomes. The goal of a curriculum map is to ensure that the curriculum is vertically aligned—the learning experiences are purposefully structured and sequenced logically from course to course to ensure students have efficient learning scaffolding to enable them to successfully master the learning by the end—and that the curriculum is horizontally aligned—that the outcomes in which students are engaged in a particular course are consistent across all versions of that same course. When the curriculum is aligned, or coherent, within the subject area, the curriculum map demonstrates subject-area coherence, and when outcomes are consistent across multiple subject areas, such as with institutional learning outcomes, the curriculum map illustrates interdisciplinary coherence.

A basic form of program curriculum map is called a "content map" or "focus map" and indicates which courses address specific PLOs:

Example Content Curriculum Map

Program Learning Outcomes ➡ Required Courses (Prefix & Number) ⬇	PLO1	PLO2	PLO3	PLO4	PLO5
ABCD 101	X		X	X	
ABDC 102	X	X			X
ABCD 211	X	X			X
ABCD 212	X		X		X
ABCD 321		X		X	X
ABCD 322		X	X	X	
ABCD 401	X	X		X	X
ABCD 402	X		X		X
ABCD 499 (capstone or signature assignment/project)	X	X	X	X	X

The content map indicates how frequently a learning outcome is addressed across the curriculum. Students should have multiple opportunities to practice learning outcomes before a summative assessment evaluates students' final demonstrations of the outcomes. No outcome should appear only once in a curriculum map as this indicates that students have only one opportunity to be introduced to an outcome, practice and reinforce the learning, and then demonstrate mastery of the outcome. Similarly, if an outcome appears only at the beginning and the end of a program of study, it is unlikely students will remember and carry forward the learning and skills to the end of the program without development or reinforcement.

To indicate the learning scaffolding in a program of study, a curriculum map indicating content focus can be augmented with designations for a learning continuum (for example, I/R/M—Introduce, Reinforce, Mastery) that indicate not only where an outcome is addressed but at what level of expectation for the learning. This type of curriculum map is called a "progression" or "learning scaffolding map":

Example Progression Curriculum Map

Program Learning Outcomes → Required Courses (Prefix & Number) ↓	PLO1	PLO2	PLO3	PLO4	PLO5
ABCD 101	I		I	I	
ABDC 102	I	I			I
ABCD 211	R	I			I
ABCD 212	R		R		R
ABCD 321		R		R	R
ABCD 322		R	R	R	
ABCD 401	R	M		M	R
ABCD 402	M		M		M
ABCD 499 (capstone or signature assignment/project)	M	M	M	M	M

Note that the final course in this generalized example could be a capstone course or a course with a signature assignment requiring students to demonstrate mastery of all program learning outcomes. Capstone courses and signature assignments requiring students to demonstrate all, or most, program learning outcomes provide an excellent opportunity for the assessment of programmatic learning outcomes. If the learning scaffolding is operating properly, almost all students reaching the end of a program of study should be able to demonstrate mastery of the learning outcomes. By gathering assessment data from the work in a capstone course or in a signature assignment, programs can ascertain whether students have met the learning expectations and can identify strengths, weaknesses, or gaps in the learning where the curriculum or instruction may merit attention and revision.

Similarly, a curriculum map matrix aligning program learning outcomes to institutional or general education learning outcomes indicates where students have opportunities to learn these broader, cross-disciplinary outcomes. These alignments indicate the breadth of students' exposure to institutional learning outcomes. These matrices are often structured with the institutional outcomes along the vertical Y-axis and the PLOs along the horizontal X-axis:

UNC Institutional Learning Outcomes	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
ILO Category 1: Mastering Foundational Skills					
1a. Explain how knowledge is discovered or created.					
1b. Apply critical thinking to analyze, integrate, and evaluate information.					
1c. Apply ethical principles to evaluate and make decisions.					
1d. Make informed decisions using numeric and scientific information.					
1e. Express ideas through multiple media and modes of communication.					
ILO Category 2: Strengthening Interactions with Others					
2a. Develop the capacity to understand and interact effectively with others whose identities, beliefs, behaviors, and values differ from their own.					
2b. Demonstrate teamwork skills that enable collaboration.					
2c. Develop and sustain mutually beneficial relationships.					
2d. Demonstrate the capacity to engage in civic, social, and political responsibilities.					
ILO Category 3: Connecting Ideas and Experiences					
3a. Apply multidisciplinary perspectives to gain new insights into issues and concepts.					
3b. Describe issues from diverse cultural, socioeconomic, geographic, and global perspectives.					
3c. Evaluate the social, economic, political, and environmental consequences of individual and group actions.					
3d. Connect experiences in and out of the classroom.					
ILO Category 4: Developing Professional Competence					
4a. Use the tools, terminology, and methods related to their program of study.					
4b. Apply the standards and practices of their major or program of study.					
ILO Category 5: Engaging in Healthy Behaviors					
5a. Describe factors that impact the health and wellness of individuals and their communities.					
5b. Reflect critically on their own personal growth.					
5c. Demonstrate practices that promote health and well-being.					

This form of curriculum map aligns the content of the program learning outcomes, as indicated by the behavior, conditions, contexts, and degree of the outcome, to broader institutional outcomes. These alignments allow institutions to understand the breadth of students' exposure to these essential, cross-disciplinary learning outcomes.