

# Curriculum Mapping



*Curriculum mapping creates visual simplicity, helping educators to pinpoint gaps, identify learning challenges, and collaborate on useful interventions.*

## Overcoming Curricular Fragmentation: An Experiential Learning Approach to Curriculum Mapping

Curriculum mapping helps build collaboration, continuity, and connection across students' learning opportunities, fostering higher level integrative learning, and a more cohesive learning experience. However, programs at many institutions struggle to form shared visions of how their curricula work. How can we collaborate to build programs that scaffold deeper student learning, measure and improve that learning, and align learning opportunities? Collaborative curriculum mapping is one solution.

A curriculum map diagrams relationships between learning outcomes and learning opportunities to show how the curriculum components work together to

help learners achieve the outcomes. Curriculum mapping helps institutions and programs identify common ground, so faculty can share student learning successes, challenges, and ways to collaborate on interventions. Maps are flexible enough to be developed for an entire institution, college, or division; for degree and general education programs; or for courses.

Our curriculum maps organize through six components:

- Student learning outcomes
- Student learning opportunities
- A key to define intersections between outcomes and opportunities
- Vertical alignment
- Horizontal alignment
- Notation of key summative assessments

### University of Maryland, Baltimore County

UMBC is a research university located near Baltimore, Maryland and is part of the University of Maryland system. Student enrollment is 13,839 with 11,243 undergraduate and 2,594 graduate students.

Academic programs include 55 undergraduate majors, 35 minors, and 24 certificates in the arts, engineering and information technology, humanities, sciences, pre-professional studies and social sciences. Graduate programs include 41 master's degrees, 24 doctoral degrees, and 24 certificate programs.

# Vertical Alignment & Closing the Loop

## How UMBC Links Institutional, Program, and Course Outcomes

### Curricular Alignment

Achieving integrated learning across programs requires vertical alignment of levels as illustrated in the figure below and in the Vertical Alignment Worksheet. Alignment allows faculty and staff to aggregate learning data across assignments and courses, discuss the results with colleagues, and collaborate on interventions at the course-, program-, and institutional-levels.

### Common Ground for Integrated Learning

UMBC's mission creates common ground for learning across the curriculum. Our institutional-level learning outcomes, called the General

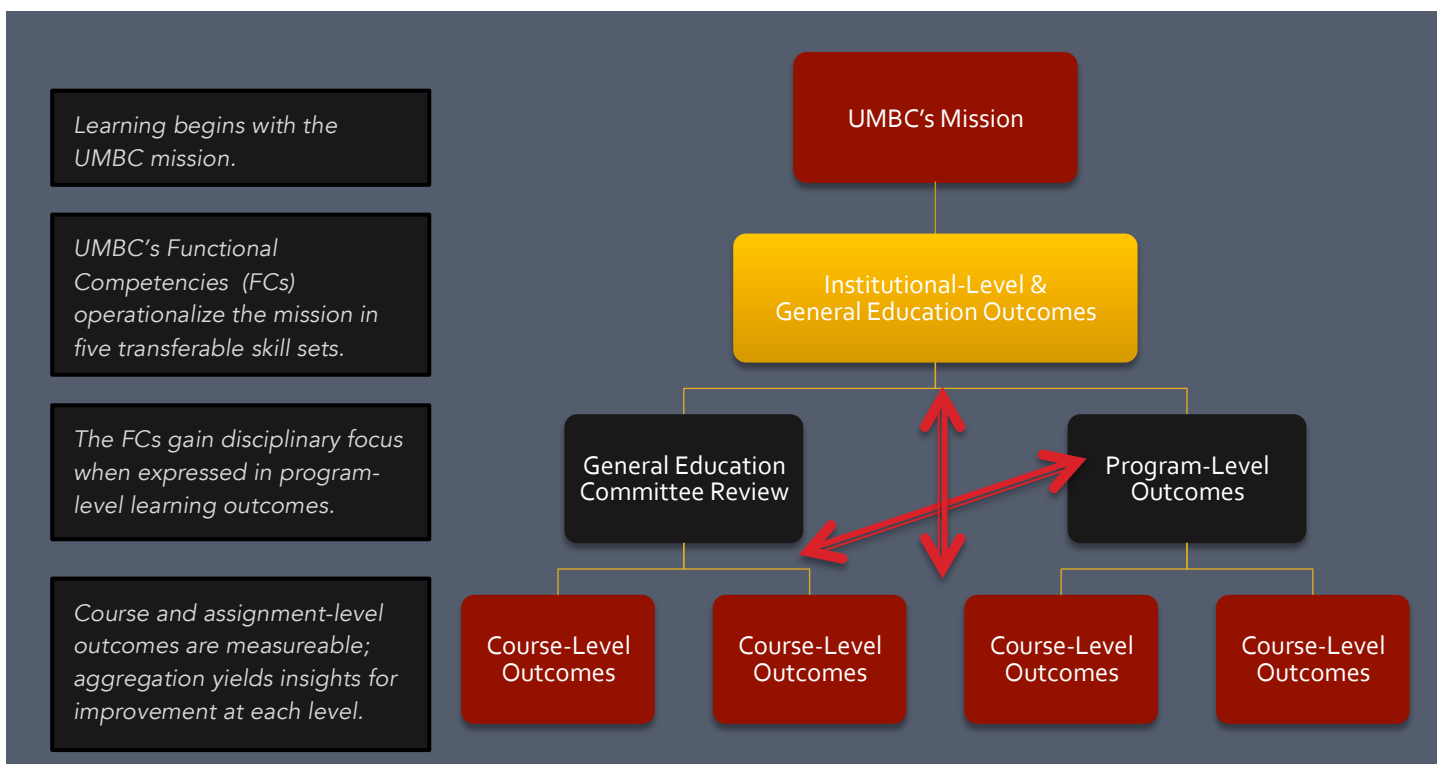
Education Functional Competencies express the mission in cognitive skills that students need to contribute to society:

- Oral and Written Communication
- Scientific and Quantitative Reasoning
- Critical Analysis and Reasoning
- Technological Competence
- Information Literacy



When faculty align outcomes from the mission to the assignment, they can measure student learning in the assignment and lift the data to each level above for aggregation and comparison. In

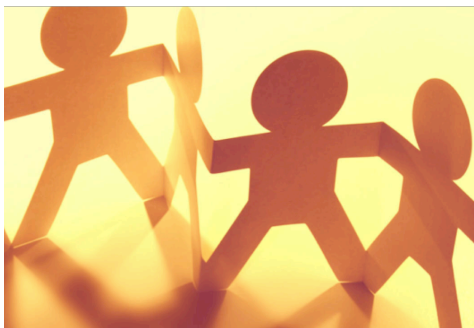
this way, faculty can use the data to close the loop to improve courses individually, or to collaborate on interventions to improve learning at the program- and institutional- levels.



Each level of learning outcomes nests within the level above: at the higher levels, outcomes are general, transferable skills; at the lower levels, outcomes are specific, discipline-focused iterations of these skills.

# Horizontal Alignment

## Collaborating via Deliberative Dialogue



Horizontal alignment creates connections across programs and standards, allowing educators to identify common ground.

### Curriculum Mapping Results

Horizontal alignment, also referred to as horizontal coherence, aligns a curriculum across multiple programs. Additionally, it allows programs to align to multiple sets of standards, for example through a crosswalk table. Many college programs must meet disciplinary accreditation standards. Social work, teacher education, engineering and information technology, psychology, allied health, and emergency medical service programs are just some of the courses of study that require specialized accreditation.

Rather than creating new or different curriculum maps to meet multiple specific standards, horizontal alignment shows the overlap between the curricula being taught and the standards of the accreditation body.

Horizontal coherence also indicates the alignment between one program of study and a different program of study, or between academic programs and

co-curricular activities, or across several different disciplines within a college. Curriculum maps provide visual representations of these alignments and encourage collaboration, integrative learning, deliberative dialogues, and gap or overlap analysis.

Horizontally aligned curriculum maps are tools that promote the integrity of student outcomes, stemming from the institutional

mission, to connect multiple aspects of students' college learning opportunities.


Curriculum mapping reveals common ground across curricular and co-curricular programs. Both faculty and students can see the multiple opportunities to achieve institutional outcomes—in courses and activities—which diversifies and strengthens student learning experiences.

### Glossary

- **Assessment Cycle:** the assessment cycle has four parts: setting *student learning outcomes* (measurable goals), *offering learning opportunities* (courses and activities), *measuring* (direct and indirect), and *closing the loop*, or applying results to continuous improvement.
- **Curriculum Mapping** uses vertical and horizontal alignment to align outcomes, maps outcomes to learning opportunities, and illustrates how programs scaffold and assess student learning.
- **Direct Measures**, like rubrics, tests, and minute papers, look directly at demonstrations of student learning and often rely on subject-matter expertise.
- **Horizontal Alignment** highlights relationships across programs and standards to create common ground.
- **Indirect Measures**, like student surveys and grades, retention and graduation rates, and usage data, look at factors related to learning.
- **Learning Analytics** collects and analyzes data associated with student learning to improve student success.
- **Narrative Aggregation** gathers assessment data into cohesive stories of student learning.
- **Signature Assignments** challenge students to synthesize multiple learning outcomes in projects that imitate real-world experiences; vertically, they map from the assignment to the course-, program-, and institutional-level learning outcomes. Horizontally, they connect to learning experiences and standards across the nation.
- **Triangulation** integrates multiple measures of student learning for context and deeper insights into how interventions work.
- **Vertical Alignment** delineates connections from the institutional mission to outcomes at each level to specific assignments.

# Curriculum Map Template

Try using this template to begin your own curriculum map. What are your program-level student learning outcomes (PLOs)? What opportunities (courses, co-curricular activities) help students to achieve the outcomes? Insert your PLOs in the first column; align them to your institutional-level learning outcomes (ILOs) in column two. Review your courses and other learning opportunities and their student learning outcomes (SLOs). Add your courses and activities at the top. Use the key to map the intersections; note where you will assess student learning with double boxes. Share with colleagues to discuss how your program helps students learn.

 AN HONORS UNIVERSITY IN MARYLAND		<h3>Your Program's Curriculum Map</h3>												
		<b>Core Courses</b> 100... Add your core course numbers above			<b>Electives</b> Note electives or other requirements			<b>Co-Curricular Learning</b> Include internships, service learning, living learning communities, undergraduate research, etc.						
<b>Your Program's Student Learning Outcomes (SLOs)</b>														
1. Write in your program student learning outcomes below. 2. Align and add your institutional-level learning outcomes. 3. Add courses and co-curricular learning opportunities to the columns. 4. Use the key below to define the intersections between SLOs and learning opportunities.														
Program-Level SLOs	Aligned Institutional-Level SLOs													
1														
2														
3														
4														
5														

<b>Key:</b> In this learning opportunity, participants ...	
	1
	2
	3
	4

Do not focus on this outcome

Gain fundamental knowledge and skills in this outcome

Practice and build their learning in this outcome

Complicate and refine their learning in this outcome

Demonstrate mastery of this learning outcome

Double lines indicate formal assessments