



Ohio Mathematics Initiative

All Ohio public colleges and universities will offer pathways in mathematics that help students succeed, increase the percentage of students completing degree programs and promote the effective transfer of credits for students moving from one institution to another.

June 2019

Co-requisite Models – Options That Support Students

The final report of the Ohio Mathematics Steering Committee (March 2014) recommended actions that established the groundwork for transforming postsecondary mathematics education in Ohio. Too many students have to take remedial coursework in mathematics prior to taking a credit-bearing course. The report called for institutions to “develop, implement, and evaluate co-requisite strategies to support underprepared students (Ohio Department of Higher Education, [Rethinking Postsecondary Mathematics](#), pg. 12).”

Co-requisite remediation provides “just in time” support for students to be successful with content in the credit-bearing gateway

course. There are a variety of different ways in which institutions can approach co-requisite content, but the key to this is a commitment to accelerate students into and through gateway mathematics courses.

In support of the recommendation, the New and Alternative Pathways subgroup (subgroup #1) of the Ohio Mathematics Initiative researched best practices in co-requisite remediation across the United States, as well as approaches being tried in Ohio. After months of work and data compilation, the group identified three co-requisite developmental models for mathematics.

Paired Course Model

The first model, the paired course model, offers students the opportunity to enroll in developmental coursework and college-level coursework simultaneously. The college course enrolls both college-ready students and students in need of developmental education. The courses run concurrently and the co-requisite coursework is paced and synchronized with the college-level course. The college course and support course are offered as two separate courses taught by either the same instructor or two different instructors depending on the implementation.

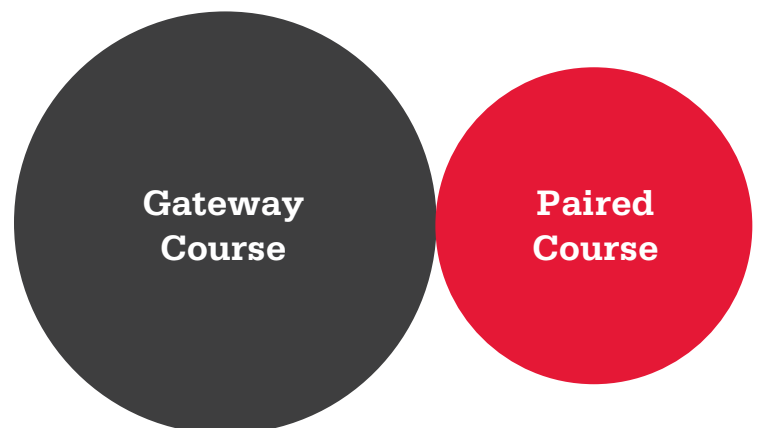


Figure 1: Paired Course Model

101 Plus Model

Institutions offering this second model include extended instructional time to provide developmental education support as an extension of the college-level course. The developmental and college-level coursework may run concurrently or consecutively in a single course with a single instructor.

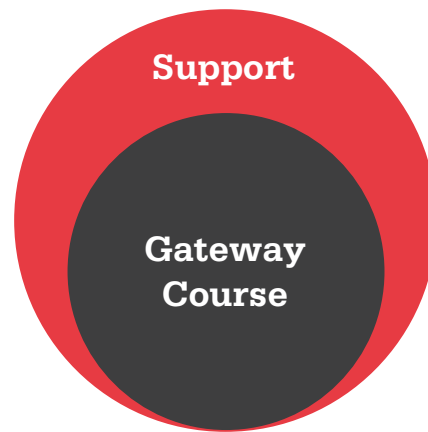


Figure 2: 101 Plus Model

Technology-mediated Model

The third model includes technology-mediated support in which institutions require students to participate in the supporting developmental coursework utilizing technology-mediated instruction where students work on computer-adaptive models in lab settings. This type of instructional support is often called the emporium model. Developmental coursework, offered concurrently or consecutively with the college-level course, is typically a separate class taught by the same or different instructor depending on the institution.

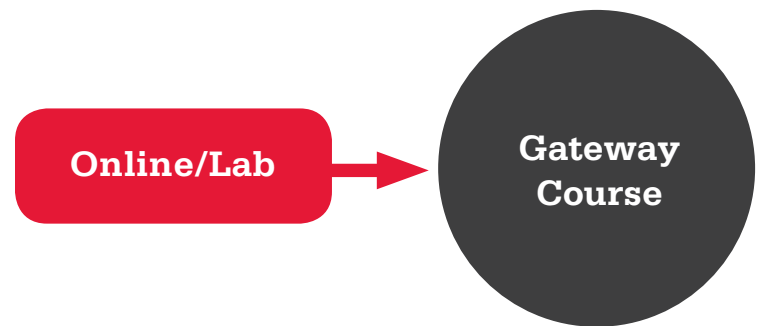


Figure 3: Technology-mediated Model

Some institutions are experimenting with variations that combine models to provide students with two or more points of intervention. The first intervention may be a summer or intercession program offered prior to the college-level course. Based on the students' competencies following the initial intervention, students may participate in additional support work if they are not yet prepared for the standalone college-level course.

No matter the model, the goal remains the same – to get students to and through their first college-level mathematics course in their first year. Co-requisite support allows students to receive the extra help they need to be successful in credit-bearing courses and brings them closer to completing their credentials.

For additional information, [visit this link](#).



Department of
Higher Education