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Toolkit



A Practitioner Manual for Scaling Corequisite Support Models

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Preface

The Partnership for College Completion (PCC), in a grant-funded joint effort with the Illinois Community College Board (ICCB), recently launched its first Faculty Advisory Board. The Faculty Advisory Board was tasked with creating a toolkit for postsecondary educators to provide institutions with recommendations for effectively implementing and scaling corequisite models.

The Faculty Advisory Board was comprised of 13 total members from various colleges and universities across the state of Illinois all specializing in supporting and facilitating corequisite curriculum in both English and Math.

This toolkit is designed to uplift and assist practitioners seeking to build capacity for developmental education reform in Illinois at the state and campus levels and reflects the Faculty Advisory Board's expertise, research, and continued support for student success in Illinois. Below are a few words from the board Co-Chairs about their roles in the creation of this resource.



Dan Kernler

Professor of Mathematics,
Elgin Community College
IMACC President, 2021-2022

“

I saw my role as the mathematics Co-Chair of this Faculty Advisory Board as an extension of my work with the Illinois Mathematics Association of Community Colleges (IMACC). Our members are dedicated to helping students succeed in their mathematics courses at our institutions, with a significant component of that being students who have not traditionally been deemed “college-ready”.

One tool gaining in popularity to help these students succeed is corequisite courses, which is the focus of this toolkit. Through this work, we hope that institutions seeking to implement corequisites are given guidance on how to best support faculty and students in that endeavor.

We hope you find it useful.



Dr. Jarmese Sherrod

Developmental English Professor
President/CEO of S.I.M.P., Inc.



I have dedicated 20 years to teaching developmental English and writing in multiple institutions. My passion is educating and empowering students to live, learn, and love everything about writing and grammar.

I chose to Co-Chair the Faculty Advisory Board to empower faculty and institutional leaders to unite to ensure that every student that attends an Illinois Community College or University has a fair and successful pathway to obtaining their future career goals. We need our future leaders to be educated and equipped to be the change that their communities need to thrive.

Our team has worked effortlessly to provide equitable outcomes and sustainable goals that will excel our students to their next level of greatness without spending years in developmental education through corequisite learning. I hope that this toolkit will be a blessing to future educators in the areas of Institutional Support, Professional Development, Pedagogy, and Student Support.

We often hear the proverb, “it takes a village to raise a child,” so let’s be that village and unite together, use these resources, and empower every student with best practices in corequisite curriculum for ALL students.



Foreword

With generous support from Ascendium Education Group, the Partnership for College Completion (PCC) and the Illinois Community College Board (ICCB) enthusiastically joined forces in a movement to build capacity across Illinois to scale developmental education reform efforts, with an emphasis on corequisite models of support. The passage of HB2170 was a historic step in helping Illinois realize our 60 x 25 attainment goal – to have 60% of adult Illinoisans earn a postsecondary degree or high quality credential by 2025, while driving greater equity in that pursuit. This bill holds the promise to help mitigate the structural barrier that traditional development education has proven to be for far too many students, especially those from historically marginalized populations.

Within this context, PCC and ICCB offer this toolkit to colleges and universities across the state to provide practical guidance in implementing and scaling evidence-based models of developmental education. This toolkit was created by the DERA Implementation Faculty Advisory Board for campus leaders to demystify corequisite models of support and

to provide resources and considerations for implementation and scale based on the unique needs of their campus communities.

This toolkit is the next artifact in our ongoing collaborative efforts to move the needle on equity-focused initiatives that remove structural barriers to student success. In the pages to follow, you will learn more about PCC and ICCB, but most importantly, you will learn more about the data supporting corequisite models of support and a By Practitioners, For Practitioners roadmap emphasizing considerations for institutional support, pedagogy, student support, and professional development.

We want to extend our deepest gratitude to the members of the Faculty Advisory Board and the leadership of our two co-chairs for the development of this toolkit. We hope that you will find the content useful as you embark on the institutional journey of implementing and scaling corequisite models of support on your campuses. We look forward to engaging with you and participating in the conversations this resource will spark across the state.

As always, we look forward to future opportunities to partner with you as we move boldly toward an Illinois where all have equitable opportunities to access, persist, and complete their college degrees in this great state.

Sincerely,

Lisa Castillo Richmond
Executive Director,
Partnership for College Completion

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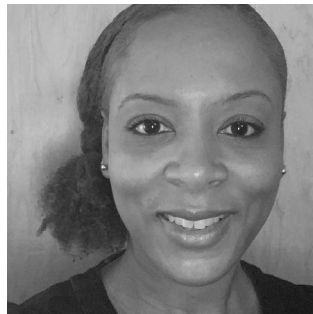
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Who are we?

The Partnership for College Completion (PCC) envisions a state where equitable opportunities to access and complete a college education lead to greater degree attainment, racial equity, and socioeconomic mobility for Illinoisans. PCC champions policies, practices, and systems that increase college completion and eliminate degree completion disparities for low-income, first-generation, and students of color in Illinois – particularly Black and Latinx students.

Toolkit Purpose

Developmental education as traditionally implemented is far too often a first stop, last stop, dead-end for students in college. For far too long, the vast majority of institutions in this state—with some notable exceptions—have predominantly offered traditional developmental education and have had no incentive to do otherwise. The Partnership is bringing resources to the state to support the implementation of a portion of a historic law (HB2170 Article 100). This law rejects the status quo and obligates institutions to implement models that maximize a student’s chances of entering credit-bearing coursework within their first two terms in college.

We know this work is complex. As a result, PCC, in partnership with ICCB, has brought resources to this issue to support the first steps of planning and scaling for this new law on a campus-by-campus basis.

PCC has chosen to build optional implementation assistance for Developmental Education around the Corequisite support model. Though there are numerous developmental education models, corequisite remediation has over a decade of research and data, from around the country and in Illinois, that shows it to uniquely improve outcomes for students. In Illinois, three-quarters of corequisite English and math students go on to complete their gateway course; that outperforms all other models by about 40 percentage points in math and 20-30 percentage points in English. The question is no longer if Illinois should scale this particular model, but how.¹

The Partnership and Faculty Advisory Board identified three key areas of focus needed to uplift and promote change at the campus level:

- Institutional Support
- Professional Development
- Pedagogy/Student Support

These areas of focus lift up the needs to be addressed at every level of the institution. Beginning with the involvement of high-level administrators and their commitment to overseeing and facilitating the initial stages of program changes, to faculty development and understanding of best practices for corequisite practitioners, and finally how to put the student at the forefront of all of these practices with an equity framework of support that advances their academic progress. ■

1. Though lower-scoring students don’t have as good of a chance of passing as higher-scoring students, they actually stand to benefit more according to this study. From 25% to 45% chance of passing, compared to 65% to 75% improvement.



CHAPTER 1:

Institutional Support

In order to successfully implement corequisite math and English at your institution, there are several areas for faculty and administrative leaders to focus on as they support this implementation including:

- Creating buy-in
- Data related support
- Providing education and training
- Updating policies and systems

Institutional Support

Sources

2. [Designing and Implementing Corequisite Models of Developmental Education: Findings from Texas Community Colleges | RAND](#)
3. [Corequisite Support - Complete College America](#)
4. [Tools for Improving Corequisite Models, A Guide for College Practitioners.](#)
5. [What We Know About Developmental Education Outcomes, January 2014](#)
6. [Remedial Coursetaking at U.S. Public 2- and 4-Year Institutions: Scope, Experiences, and Outcomes Statistical Analysis Report SEPTEMBER 2016 Xianglei Chen, Sean Simone](#)
7. [Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges Thomas Bailey, Dong Wook Jeong Sung-Woo Cho](#)

Creating Buy-in

Administrators that want to support the corequisite approach are encouraged to take necessary steps to create buy-in from all stakeholders. Literature² suggests that efforts to build buy-in were essential to successful implementation. Tips for creating buy-in include holding regular meetings with all stakeholders, providing data showing the effectiveness of corequisite approaches to those stakeholders, and involving stakeholders in the decision-making process.

When gathering stakeholders, be sure to include faculty, administrators, academic advisors, and any relevant support staff. Key stakeholders should be convened to look at data, including gateway course completion for developmental students and success rates of current reforms. This will help all parties understand the problem of student attrition and be encouraged to begin developing new models. Frequent follow-up meetings to provide engagement opportunities, discuss progress, and examine effectiveness data will further encourage buy-in across campus.

Additional tips to support buy-in include stressing the importance of supportive administrators and understanding the need to find faculty champions for change. Top-down approaches to developmental education reforms have often struggled to gain traction. Literature suggests that administrators who want to facilitate a change towards corequisite remediation should provide strong support to faculty leaders who design and build consensus for the implementation of corequisite models.

Data Related Support

Developing, updating, or redesigning programs is reliant upon access to relevant and contextualized data. The more data

departments and institutions have at the ready, the better situated they are to make informed decisions. However, some institutions have different mechanisms and systems for collecting and analyzing data, and others may not have the tools, infrastructure, systems, procedures, or governance to “democratize” data or at the very least provide regular reports in a timely manner. Institutions that may be challenged by the limited capacity of their research departments or operational systems may wish to join data partnerships or organizations as well as (re)allocate fiscal resources in such a way that prioritizes data collection and analysis. Why invest in more robust data analysis efforts? Because the data helps people understand the “why.” When stakeholders understand the “why,” they demonstrate more willingness to participate in meaningful change.

Using Data to Inform Decision-making

In order to move forward with developmental education reforms, institutions must be intentional in their review of data. While poor rates of course success and poor rates of college completion are well-documented in scholarly literature^{5,6,7}, it is imperative to dig deeper within the data in order to find more nuanced reasons for any lack of success, especially from an equity-minded perspective. Disaggregating data on an institutional, departmental, and even course level will not only better target the areas that need reform, but also potentially identify aspects of the curriculum or the support that is already effective. In this sense, analyzing what isn’t working as well as what is working will inform future directions for curriculum redesign.

One way that institutions can pinpoint problems in order to inform curriculum redesign is with equity-based data analysis.

When viewed in aggregate form, developmental education success rates cannot fully illuminate the diverse challenges, assets, and attributes of the student population. When institutions create multiple research inquiries, they can look for previously unseen patterns and trends in student success or attrition. What follows are some examples of how to disaggregate developmental math and English data in order to find the reasons for student success or attrition.

Course Format and Offerings

It is often easy to overlook the format of a course and the variety of offerings as an indicator of student success or attrition. Institutions often give deference to faculty availability or preference or room availability when scheduling courses. Department heads and scheduling staff can use a more student-centered approach to review enrollment patterns in order to gauge the needs of students; they may even consider surveying students on scheduling preferences to better understand the needs of working students, students with transportation challenges, students who are parents, students who live out of district, and student athletes.

Beyond analysis of enrollment patterns, institutions should also identify patterns of success. As an example, faculty and leaders can compare the success rates of two-day-a-week courses vs. three, four, or five-day-a-week courses. Similarly, they can discover different rates of success in 8- and 12-week courses vs. traditional 16-week courses. The time of day can also shed light on not only what times students prefer, but also help identify the times of day in which students are experiencing greater rates of success vs. failure.

Hypothetical Scenario

Cardinal Community College collected data on enrollment, success, and attrition rates for all of their developmental mathematics offerings from 2015 - 2020. They found MW and TR sections scheduled between 8 a.m. - 1 p.m. tend to fill the fastest and had the highest rates of success. This information should be kept in mind when teams schedule offerings for the redesigned corequisite course.

Level of Student Preparation and Placement

Developmental math and English course success varies by the degree of students' academic preparation, which one study defined as a "composite measure derived from three precollege academic indicators: high school grade point average (GPA), highest mathematics course taken in high school, and college admission test (ACT or SAT) scores". Chen and Simone's report analyzed first year students' enrollment in developmental math and English courses spanning the six-year period between 2003 and 2009 and surprisingly found that students with only moderate levels of preparation who complete some of their developmental courses are worse off than similarly prepared students who

take no developmental courses. A similar study⁸ found that developmental courses best support students with the most room to grow, i.e., those who are identified as weakly-prepared based on precollege indicators, but offered surprisingly little benefit to students with moderate level of preparation. More specifically, the most "weakly -prepared students" who completed all developmental courses (English or math) had "better postsecondary outcomes" than weakly-prepared students who did not enroll in developmental courses, yet the same outcomes did not hold for students who enrolled in developmental courses with moderate to strong levels of preparation when compared to similarly-prepared students who did not enroll in developmental courses.

These findings suggest that students who place at or near the placement thresholds are better off enrolling in the college-level courses than enrolling in the prerequisite developmental courses, whereas students with weak academic preparation benefit from developmental coursework. Gathering and interpreting data on student placement levels and their enrollment and success in developmental coursework can assist math and English departments in redesigning

their courses at their respective institutions. For example, departments can make adjustments to placement thresholds and redesign offerings so that only students with the weakest levels of academic preparation are placed into an intensive developmental course or program, and those who scored just below college-level can enroll in the corequisite program and any college-level courses that require a reading, writing, or mathematics prerequisite.

Sources

- 8. [Does Remediation Work for All Students? How the Effects of Postsecondary Remedial and Developmental Courses Vary by Level of Academic Preparation](#) Angela Boatman, Bridget Terry Long

Hypothetical Scenario

Franklin Community College's Developmental English department is interested in reducing the number of their four reading and writing courses (16 credits) into one Integrated Reading and Writing (IRW) course (5 credits). While they already have a separate corequisite program in place (4 credits for the developmental course + 3 credits for the college-level writing course), the program requires the reading prerequisite to be met prior to enrollment. The department chair asked the Director of Research and Analysis for cohort-based data on

enrollment, persistence, course success, college-level English success, and completion rates by developmental course level. Results indicated that students who placed into and enrolled in the very lowest levels of reading and writing courses had greater persistence, course success, and subsequent college-level English success than students who placed into and enrolled in reading and writing courses that were only one level below college-level coursework.

First course taken	Reading 091	Reading 092	Difference	Writing 091	Writing 092
Fall-to-Fall Persistence	71%	70%	1%	72%	68%
Course Success	71%	65%	6%	75%	67%
College-level English Success	68%	63%	4%	75%	66%

Faculty were surprised by the differences for the students who placed into developmental writing. Persistence, course success, and college-level English success rates were higher for students who placed into the lowest level writing course.

The interpretation of such findings led to two possible explanations:

1. The students who placed into the higher-level writing courses were “overplaced” and could have benefited from learning skills and concepts covered in the lower-level courses; or
2. Students who might have been at or near the cutoff in terms of placement or academic preparation were not appropriately challenged or motivated by the course and did not attend or participate fully in the course.

In order to explore this further, the Director of Research suggested using the department’s corequisite program data for comparison purposes. The director used populations with similar placement and level of academic preparation and found that students with the same placement and level of preparation in the corequisite course had far higher rates of persistence, course success, and college-level English success than students who enrolled in Writing 092. Thus, the concern of overplacement is not as plausible as the notion that students felt unchallenged or disengaged in Writing 092, and it is more likely that students with similar placement and level of preparation were likely more engaged, validated, and empowered in the corequisite course.

In our hypothetical example, Franklin Community College’s findings align with scholarship and nationwide data from the [Center for the Analysis of Postsecondary Readiness](#) which found that up to 30% of students are underplaced in developmental coursework and would have been successful if placed directly into college-level coursework. Further, Franklin’s data about reading course success can inform curricular modifications at the corequisite level. You may recall in the above table that success rates in college-level English are lower in students whose initial placement is in Reading 091 or 092. As Franklin Community College replaces their reading and writing courses with an Integrated Reading and Writing model they should also update the learning objectives in the corequisite to include reading instruction and support.

In the hypothetical example above, an analysis of success data at the course level and placement level can also inform faculty and leadership on which learning objectives might be better for continuing/adult basic education and which objectives can be condensed from two courses and combined into one course.

Drop/Withdrawal Rates

Using drop and withdrawal rates to better understand student readiness and student success can be complicated but is still a critical component of curriculum redesign. We know that students who place into and enroll in developmental courses face obstacles that can challenge even the most resilient of people, and students drop or withdraw from courses for myriad reasons, so any analysis here should also include an investigation into why students drop or withdraw. Many institutions list reasons on drop and withdrawal forms, and the information shared by students can potentially shape the directions of wrap-around support or referrals to resources that can help students persist. In the hypothetical example of Franklin Community College, their corequisite curriculum includes wrap-around support such as a dedicated counselor, co-curriculum programming, utilization of career services, financial education and planning, mindfulness activities, and embedded tutoring; whereas their separate reading and writing courses did not offer such support. Institutions should use any

available data or feedback from their registrar to look for patterns in drop and withdrawal rates in order to determine the need to establish wrap-around supports in the corequisite and any programs that precede it.

From a scheduling perspective, drop/withdrawal rates might be worthy of exploration in terms of course length. For example, it is worth knowing whether students tend to drop or withdraw in greater numbers in standard 16-week sections versus late-starts or accelerated sections. As is the case with course format analysis, any findings about drop or withdrawal rates based on class time/day could inform scheduling options for the corequisite program.

Success Metrics through an Equity Lens

While it is well known that success rates are generally poor in standalone developmental courses, it is more useful to know which courses - by level and format/ offering - yield the highest and lowest rates of success and to disaggregate this data by race/ethnicity, Pell status, gender, first-generation status, full-time vs. part-time, and age grouping.

To continue with the hypothetical example of Franklin Community College, the aggregate success for students in the corequisite model was quite high, but with concerning equity-related completion disparities at the college (Black, Latinx, and under-resourced students earn a credential at lower rates than White students and more affluent students), the Developmental English department wanted to investigate persistence and course success for those populations as well as first-generation students. If Franklin Community College were to find that Black, Latinx, and under-resourced students were markedly more successful in the corequisite than they were in the traditional sequence, or even outperformed students enrolled in the college-level English course only, an argument can be made that the corequisite program be scaled. If an institution does not currently have a corequisite program, then they may wish to read scholarship about equity-related success for students enrolled in corequisite programs at institutions within their peer group.

In sum, institutions are positioned to develop a responsive and effective corequisite program by first performing a cohort-based analysis of their current developmental program using the recommendations shared here for guided inquiry.

Institutional Needs for Effective Data Analysis

In order for Developmental math and English faculty, administrative leadership, and student support colleagues to analyze the current programs using the previously-mentioned guided inquiry, the approaches and processes below are highly recommended. The guidelines below have been adopted from Complete College America's [No Room for Doubt: Moving Corequisite Support from Idea to Imperative \(2021\)](#).

After identifying a data team of 3 - 12 people that includes faculty who can be part of developing research questions, hold several planning meeting(s) with administrators and faculty that:

- 1. Agree** upon what constitutes "evidence" that justifies change as well as evidence of what works best
- 2. Define** roles and responsibilities for each team member of the project
- 3. Develop** evaluative research questions on 5-yr cohort data disaggregated through an equity lens
 - Use data from Postsecondary Data Partnership (through the National Student Clearinghouse)
 - Give faculty access to institutional dashboards before and during training
- 4. Discuss** findings in several meetings with faculty, the Director of Research, advisors, and administration

- 5. Refer to the research** and resources on best practices in our Toolkit and solicit invitations from other institutions with successful corequisite programs to share their experience developing and evaluating the program
- 6. Use institutional data** and research to make decisions on curriculum redesign and refer to example data hypotheticals above to direct your inquiry
- 7. Establish benchmarks** or goals for the data and know that these benchmarks and goals are dependent upon what you discover in your own institutional data
- 8. Hold a "town hall"** to share findings about current programs and proposed directions
- 9. Revise** plan as necessary based on feedback from town hall
- 10. Develop** a plan for initial pilot data analysis

Depending on the size of the institution or departments, teams might want to be separated by discipline (separate teams for math and English), and partners from ancillary departments like Registration, Scheduling, Curriculum, Testing, Advising, Research, Student Life, Academic Support, and Information Technology are necessary to ensure communication is frequent and structural mechanisms are in place. ■

Institutions are positioned to develop a responsive and effective corequisite program by first performing a cohort-based analysis of their current developmental program

Education and Training

The work of scaling a corequisite model includes training and contribution on three levels: faculty, administration, and advising. One of the major components of scaling a successful corequisite model is messaging and a clearly-defined process for getting students enrolled into the appropriate classes. The intention of a corequisite model is to reduce obstacles toward college completion. An institution must identify the type of corequisite model that best fits the institutional type. Common corequisite models include paired courses and increased instructional time or stretch in a lab or studio.

Level 1: Faculty

Implications: Best practices, instructional planning, pedagogical philosophies

The first level of education and training focuses on faculty. A major point of education and training at the faculty level includes providing faculty with an advanced definition of accelerated learning/ corequisite course models and resources that shape best practices for instruction. Tension may exist and might be rooted in a general misunderstanding of this model and its implications for instructional planning and delivery.

Depending on the corequisite model that best fits the instructional context, faculty should be provided with support and resources to effectively plan and implement meaningful learning. Developmental education is a research-driven field and faculty should be encouraged to examine the research on best practices related to the instructional model as well as necessary supplemental support and resources⁹.

Level 2: Administration

Implications: Faculty Workload, Course Scheduling

Education and training at the administrative level includes an understanding of the “moving parts” related to building and sustaining an accelerated learning environment using corequisite course design. This will impact the curriculum, faculty workloads, and course scheduling, to name a few spaces.

Connected to instructional planning, scaling a corequisite model may result in curriculum changes. Institutional policies related to curriculum matters should be reflective of corequisite planning and how

the various models impact scheduling. Specifically, curriculum changes may include the need to increase contact hours, additional lab or course fees, and physical space. This will also impact faculty workloads, since many institutions have limits related to the number of courses or credits faculty can be assigned. Furthermore, institutions must examine class size.

Level 3: Advising

Implications: Messaging, Enrollment

Often, students gain an understanding of college requirements through advising. Shifting the messaging and understanding of developmental courses through a deeper understanding of accelerated learning/ corequisite models can reshape students’ understanding of their academic progress in light of developmental placement.

The first touchpoint a student has with an institution is often through an academic advisor. Students tend to seek support from their advisors related to academic requirements and expectations¹⁰. Intrusive advising tends to be the best approach for working with students¹¹. Also, students depend on advisors to provide information related to the impact of taking certain courses as well as how these courses fit with the rest of their courseload in a given semester¹². Advisors have the opportunity to reshape the messaging around support courses as a means to remove obstacles. In the case of corequisite models that require concurrent enrollment or increased instructional time, students must be provided with clear instructions related to getting enrolled in a course and any additional support requirements associated with corequisite courses.

Updating Policies and Systems

When implementing any new curriculum, it is necessary to update existing policies and systems to accommodate the new method. Based on the experience of institutions that have implemented a corequisite model, there are at least four important areas to focus on including:

- Corequisite design principles
- Placement procedures
- Helping students who place below the corequisite
- Course sequencing

Corequisite Design Principles

The main goals of any new developmental math or English model are to shorten the amount of time students require to reach college-level courses and increase their success once they reach these courses. There are a few important principles to follow when designing a corequisite model to meet these goals.

- First, all effort should be made to place students directly into a college-level math or English course. Corequisite support courses have been shown to help students who would not traditionally be placed in college-level courses succeed.¹³
- Second, students that require a corequisite support course should be required to enroll in these courses during their first year at the institution. When students postpone these gateway courses, they tend to be less successful; it can extend the number of semesters needed to transfer or graduate.

- Third, the literature suggests that the most successful corequisite models include 1-3 credit hour support courses that are offered alongside the appropriate college-level course and are designed to help students master the skills and knowledge required for success in the accompanying college-level course.¹⁴

Placement Procedures

A large part of placing most students into college-level math or English with or without a support course is updating placement procedures. This can be done effectively by empowering faculty, advisors, and placement staff to use some form of multiple measures placement.¹⁵

A number of measures beyond the traditional placement test can be used including¹⁶:

- Overall high school GPA, either official or self-reported
- Math or English specific GPA
- High school course grades

These measures, along with a discussion of student goals and confidence, have been shown in the literature to successfully place students in math and English.

Students who place below corequisite

It is the decision of key stakeholders at your institution to implement a corequisite model that will enhance the lives of your students. Your institution may decide that college-level placement is not appropriate for all of your students. For these students, it is still important to help them successfully complete college-level courses as soon as possible. Your institution may want to consider instructional models beyond that traditional course structure.¹⁷

These might include:

- Emporium Model - Self-paced, computer-based instruction where students must show mastery of a topic before moving on
- Bootcamps – Short-term high intensity instruction
- Accelerated Courses - Traditional courses taught on an accelerated time schedule

Course Sequence

The style of corequisite advocated in this toolkit will most likely be unfamiliar to your staff and students; therefore, it is important to create course sequences that are well-communicated and as easy as possible to understand. Ideally, there would be multiple course sequences - especially in math - for students, depending on their personal goals (i.e., STEM, quantitative reasoning, statistics, etc.). In order to help students navigate these sequences, it is highly recommended that all students who require a support course or place below college-level be required to meet with an advisor to discuss their goals and choose the sequence that is right for them. ■

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15. [Liston, C. & Getz, A. The Case for Mathematics Pathways, Charles A. Dana Center at The University of Texas at Austin](#)
16. [Richardson, C. & Dorsey J. \(2019\), Key Considerations in Designing Co-requisite Supports, Charles A. Dana Center at The University of Texas at Austin](#)
17. [Co-requisite Courses: Narrowing the gap between instruction and supports, Charles A. Dana Center at The University of Texas at Austin, 2017](#)



CHAPTER 2:

Professional Development

Faculty who are teaching a course in a corequisite model will need professional development that includes a focus on cultivating growth mindsets, implementing strategies to support student success, and meeting students where they are. This professional development should be ongoing and not offered just as preparation for teaching these courses but should occur throughout the teaching experience.

Illinois has not been the first state to promote corequisite programs in English and math. Therefore, we can look at the evolution of these programs in other states as models for Illinois. Typically, a state's higher education agency will contract with a non-profit organization to partner with implementing corequisite models. These have taken the form of professional development workshops for faculty working to implement or scale up corequisite programs.

The key considerations for faculty and administrators in this section focus on the acquisition of new skills and new knowledge in the corequisite classroom, as well as the awareness of helpful professional development resources and ideas for effectively utilizing budget funds.

Professional Development

What new skills are important for faculty to develop as they implement or scale a corequisite model in the classroom?

When implementing or expanding a corequisite model, opportunities for professional training that are earmarked for staff can determine the model's success. Consider building skills in the following areas to establish institutional readiness when launching or scaling a corequisite model.

Identifying Stakeholders

When stakeholders' engagement is efficiently executed, it creates collegiality, garners support for projects, and promotes the internal sharing of knowledge to advance institutional initiatives. Moreover, stakeholders' engagement allows for meaningful conversations that are centered around corequisite implementation strategies. It also better positions the institution in addressing members' questions and concerns.

Selecting key collaborators and team members in the early planning stages will ensure that essential staff feel valued for their contributions in a successful launch of a corequisite model. It is important to consider the following stakeholders as part of your corequisite implementation or scaling team.

Academic Support Staff can provide critical input on intervention strategies to use in instructional practices and offer course-embedded tutoring services to support students' success.

Advisors can ensure that students understand the corequisite model and that these courses align with graduation requirements. Advisors can best communicate the benefits of the corequisite model to students.

Faculty who teach corequisite models can share best practices and pedagogy to use in implementing these models, offering insight into what teaching strategies could best align with the recommended corequisite model in planning student learning outcomes and course objectives.

The Dean of Instruction can ensure that the design of the course meets the criteria set forth by the Illinois Community College Board and the Illinois Board of Higher Education.

The Developmental Education

Coordinator can support course alignment with credit courses, bridge communication between faculty who teach credit and corequisite courses, and facilitate opportunities for professional development.

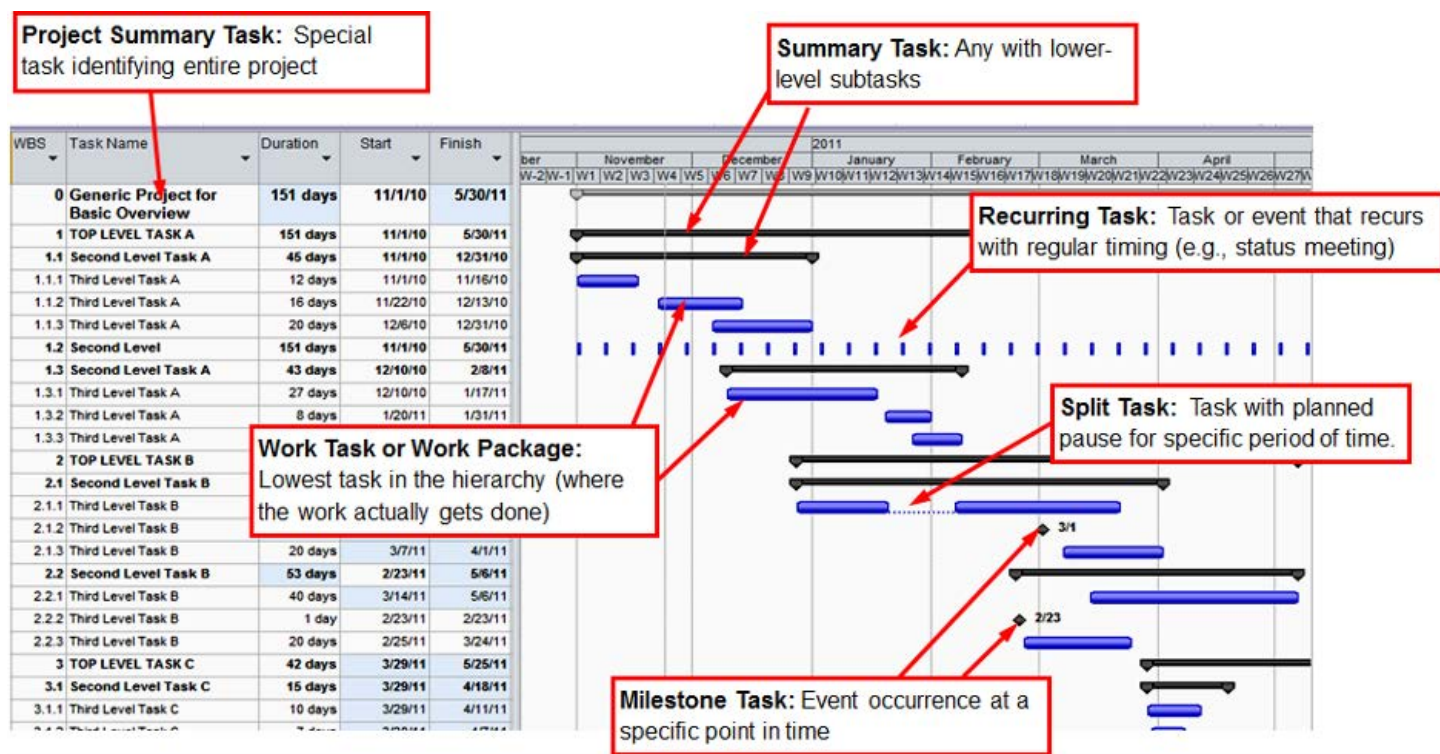
The Financial Aid Director can guarantee that the corequisite model allows students to maximize their financial aid allocations on courses that count towards degree completion.

The Registrar is essential in ensuring the transferability of corequisite course credits and provides approval of registration in these courses under special circumstances. Their input is needed to guarantee that the prerequisite course hours are accurately recorded on transcripts.

By identifying key collaborators and team members in the early planning stages, you will ensure that these individuals feel valued for their contributions to a successful launch of a corequisite model. To facilitate teamwork, create a tracking document that includes individuals who are involved in the project. For example, a Simple Gantt Chart (Figure 1) can be used to organize deliverables, track assignments, and record progress. A Gantt Chart is commonly used in project management and is a useful way to track project activities and visualize the movement of the project towards its goal. In implementing a corequisite model, consider the Gantt Chart to...

- show activities related to the corequisite implementation;
- track start and end dates of activity;
- show overlap in planning efforts;
- see project milestones; and
- assign personnel/departments to key activities.

Figure 1



Researching Corequisite Model(s)

It is important to understand past practices, current trends, theoretical nuances, and empirical innovation in developing corequisites so that an institution’s mission and goals are clearly stated in the establishment or scaling of a corequisite model. To this end, RAND Corporation’s “Tools for Improving Corequisite Models: A Guide for College Practitioners” toolkit provides a window into the corequisite trials at five community colleges in Texas, including implementation strategies, program delivery methods, and improvement processes.

Sharing Ideas

Transitioning to a corequisite model can be perceived as a Sisyphian task. Providing key stakeholders, such as faculty, with data from a campus S.W.O.T. Analysis¹⁸ and space to brainstorm design ideas—conjecture mapping is useful for epistemic planning and determining outcomes—to ascertain their model preferences is essential to garnering these individuals’ support. Utilizing and creating an implementation guide could prove beneficial when initial talks begin about implementing or scaling a corequisite model. McGraw Hill’s Goal Setting

Resource document¹⁹ provides examples of how to direct discussions about the model’s structure and its essential components.

Developing an Implementation Plan

Having a logical implementation plan is essential to the successful launch of a corequisite model, as it organizes assignments and serves as a visual reminder of tasks to accomplish. One tool to consider using to create a viable corequisite model is a Plan-Do-Study-Act (PDSA) Worksheet (Institute for Healthcare Improvement). Conceptualized and developed by Walter A. Shewhart and W. Edwards Deming, respectively, the PDSA Cycle²⁰ (Figure 2) “is a systematic process for gaining valuable learning and knowledge for the continual improvement of a product, process, or service,” according to the W. Edwards Deming Institute. Long-established in healthcare settings to promote systematic changes, the PDSA Cycle is now used in educational settings when evaluating learning and educational outcomes.

When implementing or scaling a corequisite model, stakeholders will find the PDSA Cycle useful in their efforts to...

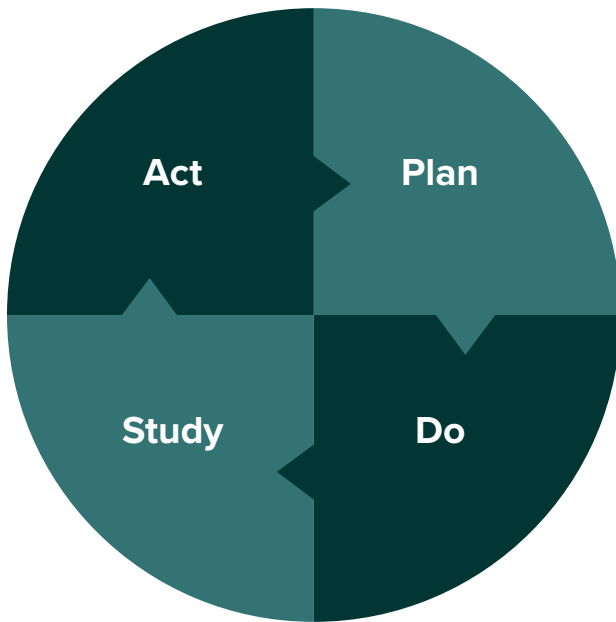
- devise a blueprint for a corequisite model blueprint that reflects stakeholders’ engagement in topical research, model conceptualization, and goal planning;
- conduct a small-scale pilot study of the model;
- analyze data yielded in the pilot to determine if goals were met and if the corequisite model requires adjustments, revisions, or withdrawal; and
- use information learned to implement or redesign the corequisite model.

Sources

18. A S.W.O.T. Analysis is a strategic planning tool that identifies an organization’s strengths, weaknesses, opportunities, and threats to support project planning.
19. <https://s3.amazonaws.com/ecommerce-prod-mheducation.com/units/highered/services/corequisite-implementation/goal-setting-worksheet.pdf>
20. For more information about the benefits of performing a PDSA Cycle, explore W. Edwards Deming Institute’s website or read Shakman, Bailey, and Brelow’s (2017) white paper on PDSA. For an exemplar of a fillable PDSA template, please consult the Agency for Healthcare Research and Quality.

Figure 2

Specific steps in using the PDSA model to support the implementation or scaling of a corequisite model are detailed below.



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1. Plan

- Objective
- Questions and predictions (why?)
- Plan to carry out the cycle (who, what, where, when?)
- Plan for data collection

2. Do

- Carry out the plan
- Document problems and unexpected observations
- Begin analysis of the data

3. Study

- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned

4. Act

- What changes are to be made?
- Next cycle?

Stage 1: Plan

Assemble your team - providing an overview of the task, identifying roles and responsibilities, setting timelines, and determining a meeting cadence. Next, draft a goal statement that tells what the team is trying to accomplish, what ultimate change is expected for developmental education improvements, and how the team will track milestones. Finally, examine the current developmental education course models. Use the following questions to guide the team's conversation.

- What are we doing now?
- How do we do it?
- What are the major steps in the process?
- Who is involved?
- What do they do?
- What is done well?
- What could be done better?

Additionally, your team should write a problem statement to describe the current challenge with developmental education course structures. If there is more than one problem, prioritize them. Include a justification for each problem. Analyze the causes of the problem. Consider its root cause and how it affects student efficacy and their two-semester completion

of a developmental education course sequence. Use the analysis to propose corequisite models that could solve the current problem. Ensure all stakeholders contribute to this conversation. The team should reach a consensus about the best corequisite model to implement and write an action plan for its pilot.

Stage 2: Do

Use the planned solution to implement a pilot study of the corequisite model. Collect data to monitor and evaluate the effectiveness of the course model. Document observations, challenges, and/or concerns throughout the process.

Stage 3: Study

Using the goal statement from Stage 1 and data collected from the pilot in Stage 2, determine if the corequisite model resulted in improvements in student success and retention. Note trends, and unintended effects of the corequisite model.

Stage 4: Act

Reflect on the plan and outcomes. If the corequisite model was successful, standardize it across the discipline. Periodically return to Stage 1 of the plan to determine if it could be further improved.

Alternatively, if the pilot reveals that the corequisite model needs further adjustments, return to the planning stage and modify the model (Minnesota Department of Health).

Identifying Steps to Take in Piloting a Corequisite Model

An experimental study of corequisite models²¹ will assist stakeholders in recognizing potential program deficits and address these issues prior to the official launch of the program. Completing an institutional self-assessment* can be effective in understanding areas for improvement for your institution as guidance in setting up a corequisite pilot study. In addition to reviewing implementation guides and tools, utilizing information from corequisite pilot studies can prove successful while in the planning phase of scaling. ■

Sources

21. [Tennessee Corequisite Placement Pilot: While Challenges Remain, Corequisite Remediation Shows Early Signs of Success](#)

*A sample Self Assessment worksheet along with other planning tools are included in the tool kit appendix

What new knowledge is important for faculty to acquire as they implement or scale a corequisite model in the classroom?

Sources

22. After a successful pilot, [Tennessee scaled co-req](#) and saw huge increases at every ACT level, with those under a 12 going from a 2.1% chance of passing to a 37.5% chance.
23. [ICCB's RCT](#) not only showed success in college algebra, but dev ed co-req students outperformed placed students 70% to 67%.
24. [Texas Association for Community Colleges study](#): 74% of co-req college algebra students passed in one CC, another HSI saw 67% success in college algebra, finite mathematics, and contemporary mathematics, .82% of Texas IHEs offer college algebra corequisites.

There are many challenges institutions face when implementing or expanding a corequisite model. One specific challenge is having limited preparation and support for model design and instruction. Consider the recommendations below to prepare faculty for the implementation of corequisite models.

What is corequisite vs traditional developmental education?

According to research given by the Illinois Success Network, about 43% of high school graduates that enter college are not prepared. Additionally, it is important to note that Black, Hispanic, and low-income students are disproportionately placed into noncredit courses, which are designed to prepare them for college-level courses. However, these courses often seem to have little benefit and detrimental results. Since the traditional prerequisite model is not working for many students, several states have sought different options that would support students with remedial needs.

One alternative to the prerequisite model is mainstreaming students who place into developmental education with traditional college students. This practice is referred to as corequisite remediation because students will receive additional support. The focus on strengthening both pathways for alignment and gateway courses curriculum is essential. Corequisite models are designed to address a pitfall of the traditional model by implementing pathways in the curriculum that are aligned with specific areas of study. The corequisite model has been shown to produce better outcomes^{22, 23, 24} than the traditional model in terms of student success when taking first-year gateway courses.

Different Options of Corequisite Models

In a 2016 Texas corequisite study funded by the U.S. Department of education, five different options of corequisite models were identified:

Paired Course

Paired course models have a developmental education (DE) support that looks relatively similar to the traditional DE course, although the corequisite students enrolled in the DE and college-level courses simultaneously rather than staggering the courses over two semesters. The DE supports in paired course models were structured as three- or four-credit hour courses, and typically retained the same textbook and much of the same coursework that was used for the traditional DE course, although some interviewees described efforts to increase alignment through occasionally shared coursework, aligned scheduling of course times, establishing learning communities, and shared instructors or collaborative planning. In paired course models, DE students typically enrolled in separate sections of the college-level course without college-ready students, and the course and DE support typically had student-to-instructor ratios similar to traditional courses.

Extended Instructional Time

Extended instructional time models designed the DE support largely as an extension of the college-level course; in some of the most extreme cases students were unaware they were enrolled in two separate components. The DE support in extended instructional models was structured as classroom instruction, and most or all of the coursework came from the college-level course. These models often structured the DE supports as just one-credit hour, and in most cases, the same instructor taught the college-level course and the support. In extended instructional time models, corequisite students typically enrolled in separate sections of the college-level course.

Accelerated Learning Program

The Accelerated Learning Program (ALP) model is the most well-known corequisite model and the only model to have been studied rigorously. Institutions with ALP models adhered to the ALP-prescribed design for the most part, with the DE

support structured as classroom instruction, mixed student populations in the college-level course, and reduced student-to-instructor ratios in the DE support. Guidance from ALP suggested a mix of college-level coursework and additional DE coursework, and institutions generally reported this to be the case for their ALP model corequisites, although some institutions focused to a greater degree on the college-level coursework than others. While the traditional ALP model required a three-credit-hour DE support, several colleges designed their ALP-like models to have one- or two-credit-hour supports. And while the traditional ALP model specified a mix of 10 college-ready students and 10 DE students in the college-level course, institutions occasionally adjusted these ratios to increase the overall course size. All institutions with ALP models used the same instructor for the college-level course and the DE support.

Academic Support Services

Models utilizing academic support services typically include required mandatory and regular participation in academic support services that were commonly offered at the institutions for voluntary student use. Mandatory participation in academic support services alongside the college-level course consisted of attending the writing center (i.e., writing-based tutoring) or instructor office hours. These models were typically structured with one-hour support, and DE students were typically integrated into sections of the college-level course with college-ready students. Office hour-based models relied on the same instructor for both components, while writing center-based models often used a different instructor for the DE support.

Technology-Mediated

Institutions implementing technology-mediated models required students to participate in DE supports that primarily relied on technology-mediated instruction through work on computer-adaptive modules in lab settings. These models often had one-credit-hour support and, in most cases, a different instructor facilitated the lab sessions. Typically, these models required corequisite students to enroll in separate sections of the college-level course from college-level students.

Among these models, it was found that there are certain practices necessary to be effective:

1. Collaborative faculty

Collaborating with faculty creates buy-in and promotes an environment for a diversity of best practices to be shared.

2. Establish a dedicated committee

Establishing a dedicated committee to plan and develop a clear vision assists in having clear goals and objectives for those currently implementing and for future training.

3. Identify qualified faculty and invest in professional development

Institutions should seek out faculty who:

- Have a passion for working with underprepared students
- Have flexibility in modes of instruction
- Are prepared to address student needs
- Focus on equipping students in need of remediation

4. Create repositories of content for instructors

Creating a shared database where instructional tools can be exchanged

5. Ensure sufficient facilities

The environment where instruction is delivered must have the essential learning instruments necessary to ensure student success.

6. Build robust tutoring programs and writing centers

These support services are essential for providing learning support which is a key feature of the corequisite model.

7. Smaller class sizes

Small class sizes are important because they allow the instructor to devote individual support to students who struggle.

8. Continuous evaluation and improvement

With any model to increase student success, understanding what works and what doesn't, requires that all efforts are situated in a continuous improvement framework. ■

What is being offered as professional development at the local, state, and national levels for faculty implementing or scaling a corequisite reform model?

Corequisite models were first studied and promoted by the Community College Research Center (Columbia University) around 2012. Since that time, we have seen efforts within Illinois as well as other states in the U.S. In this section, we highlight some professional development offerings at the local, state, and national levels that may help faculty who are implementing or scaling a corequisite model.

Professional Development at the local level

While a comprehensive list of local level offerings is not available at this time, we can highlight some of what has been done so far as well as provide suggestions for professional development support at the local level for the future.

In October of 2018, the Illinois Community College Board published the *Illinois Co-Requisite Implementation Guide*²⁵. One of the first steps recommended for implementation is to develop a team on campus that is committed to the corequisite reform project. Whether this team has already been created or if your institution is planning to create such a team, this team would be a valuable resource to guide professional development at the local level. This team should include other stakeholders beyond the faculty developing the curriculum and teaching the courses, such as administrators, academic advisors, and other support staff. The team should also meet regularly not only during the development of the corequisite model but also during the implementation of this program. Information related to campus core team formation can be referenced in the previous toolkit section Institutional Support.

Institutions throughout Illinois are at different levels of implementation of corequisite models. In ICCB's Implementation Guide, they highlighted some of the early adopters in the state such as Harper College, Lake Land College, and Lewis and Clark Community College. Since that time, other colleges in Illinois have implemented corequisite models as well. Whether your institution has implemented a corequisite program or not, we recommend reaching out to other institutions that have implemented a program to learn from their experiences.

Professional Development at the state level

In March of 2021, Illinois passed HB2170 advocating for systemic changes in admission practices around the gateway course curriculum. Previous to the passing of this bill, there had been multiple efforts to address issues with college retention and completion. As previously cited, in the Introduction to ICCB's October 2018 Corequisite Implementation Guide, it is noted that "The IBHE and ICCB have committed to scaling corequisite courses throughout the state. A statewide scale is defined as: **At least one co-requisite course offered in both English and math at each community college and public university in the state of Illinois**" (p. 2).

One of the early advocates for the adoption of corequisite models was Dr. Gregory Budzban when he was Chair of the Mathematics Department at Southern Illinois University Carbondale. At that time, he was working with Dr. Uri Treisman of the Charles A. Dana Center at The University of Texas at Austin and other mathematics department chairs at Illinois Public Universities to implement mathematics pathways, which would support the implementation of corequisite models. While seeking funding from Complete College America in 2014 on behalf of ICCB and IBHE, Dr. Budzban cited mathematics corequisite implementation efforts at the City Colleges of Chicago, Southern Illinois University Carbondale, Lewis and Clark Community College, and University of Illinois Chicago. In 2015, Dr. Budzban became Dean of the College of Arts and Sciences at Southern Illinois University Edwardsville, where he was able to bring his experience with corequisite models to that institution.

In October of 2015, he also organized an Illinois Mathematics Pathways Meeting among mathematics department chairs of public universities in Illinois with one of the goals to share ideas pertaining to corequisite instruction and other support in mathematics classes.

Since Dr. Budzban's efforts, we have seen the increased implementation of corequisite models in both mathematics and English. We have seen efforts gain momentum and gain the endorsement of ICCB and IBHE, as noted above. As noted in the section on local resources, consultation with the individuals involved in the implementation of corequisite models within Illinois is a valuable professional development resource.

In addition to the materials provided by ICCB and IBHE, annual conferences of professional organizations within Illinois, such as the Illinois Mathematics Association of Community College (IMACC), Illinois Section of the Mathematics Association of America (ISMAA), and the Illinois Association of Teachers of English (IATE), can provide venues to discuss implementation and experiences with corequisite models.

As ICCB and IBHE look to scale up the implementation of corequisite models, we are seeing additional state-level resources being developed to support the professional development of faculty in the state. This toolkit is an example of the results of such efforts.

Professional Development at the National Level

Nationally, Complete College America is one of the most prominent organizations supporting corequisite models in English and mathematics. Complete College America's [Corequisite Support page](#) provides some background on corequisites and links to various reports on corequisite programs as well as links to research articles about corequisite support.

As we noted earlier, one of the initial organizations promoting the corequisite program was the Community College Research Center at Columbia University. They regularly publish studies about what is known about corequisite remediation and what is successful about these programs. See their [Developmental Education page](#) to see resources posted there about corequisite remediation and other reform efforts.

Corequisite programs in mathematics work well with mathematics pathways, which is another reform listed on the Community College Research Center's page cited above. We see these math pathways guiding Illinois's efforts in creating Transitional Mathematics courses. The Charles A. Dana Center at The University of Texas at Austin is one of the leaders in promoting mathematics pathways and they have provided a [Corequisite Support Page](#) that includes additional materials.

National professional organizations have made statements supporting the implementation of corequisites in supporting student success. The National Council of Teachers of English published a statement on [Core Principles for Transforming Remediation](#) in 2015 and the American Mathematical Association of Two Year Colleges published their [Position Statement on Corequisite Mathematics Courses](#) in 2021.

Both non-profit research centers and publishers have provided materials that might be helpful as you work to further prepare for implementing a corequisite program. For example, the University of Nevada has made available on YouTube a selection of webinars for English corequisites, math corequisites, and advising support needed for corequisites. Dr. Keith Pachlhofer, representing the University of Central Arkansas's Corequisite Institute, has also posted a series of webinars accessible on YouTube that can be helpful for professional development.

Commercial publishers such as Cengage, Pearson, and Hawkes Learning Systems have also created resources to support the implementation of corequisite programs. Cengage's page has sections titled Research and Opinions, Corequisite Solutions, and Statewide Trends and Mandates, with information about Illinois in this section. Hawkes Learning Systems page provides free resources available to download as well as access to webinars on corequisite programs. Pearson's page offers workbooks to accompany corequisite support modules.

Many states have worked to support the implementation and scaling of corequisite models. Two states who were early adopters were California and Texas. They have made resources available that can be helpful if you are looking for additional materials to help learn more about successful corequisite programs. Here we recommend looking at materials posted by the California Acceleration Project on [Corequisites](#) and materials posted by the [Texas Corequisite Project](#) for some materials that can serve as models of statewide programs supporting the development and implementation of corequisite programs. ■

What are creative ways that faculty can use their professional development funds to improve their ability to successfully implement or scale a corequisite reform model?

Faculty professional development not only helps instructors better meet the needs of students, but also inspires and motivates teachers to connect with, and make a difference in, student lives. When beginning a new course program, it is important for faculty to work together to understand their students and discuss different approaches to reaching their learning outcomes. The following suggestions offer faculty and administrators affordable professional development options during the implementation of corequisite programs.

Teacher Workshop Trainings (Best Practices)

Providing workshops targeting new teachers of developmental education, specifically in the corequisite format, is a productive method for sharing ideas and preparing teachers for a new course program. If colleges already have experienced faculty in these areas, they could pay small stipends to develop and deliver “best practice” seminars to help less experienced teachers acclimate to the corequisite classroom environment. Institutions that lack faculty leadership in workshops might consider seeking interested faculty from other colleges who might deliver professional development (even in virtual format) for small stipend amounts²⁶. These workshops could easily be delivered in a half-day format.

Instructional Design Workshops

Instructional design “carefully considers how students learn and what materials and methods will most effectively help individuals achieve their academic goals.”²⁷ Math and English departments that might have instructional designers on staff would benefit from utilizing this resource. Developmental students entering corequisite courses are often unfamiliar with navigating learning management systems (LMS), decoding syllabi, and comprehending individual assignment instructions. While this confusion is expected, teachers can improve at making their content more “user friendly,” helping students grasp important processes, as well as the content. Colleges who do not have these resources “in-house” on campus might consider using professional development funds to find an instructional designer willing to host a workshop for corequisite faculty.

DEI Workshops/Training

Colleges that have offices or departments for Diversity, Equity, and Inclusion might consider using professional development funds to organize communication or training between corequisite faculty and their staff. Developmental students often enter the classroom unsure of their place in higher education, but faculty can improve their awareness of diversity issues to make all students feel included. Meetings or workshops could be developed simply as spaces of open dialogue; these conversations can be critical to helping instructors create ideal corequisite classroom environments. If “in-house” DEI staff are not available, colleges might consider looking outside their institution to find qualified professionals to lead these workshops. These sessions would not be simply online compliance; they would be meaningful learning spaces for faculty to discuss classroom issues.

Sources

26. Estimated stipend range: \$100-\$300 for a 2-4 hour workshop.
27. [2022 Kaplan North America. \(2022\). What is instructional design? Purdue University Online. Retrieved April 20, 2022](#)

Organizations & Conferences for Professional Development Fund Usage

National Organization for Student Success (NOSS)

NOSS, formerly NADE, offers resources for faculty and administration to help all students succeed. Specifically, conference presentations cover teaching, corequisite implementation, advising, support services, etc.

[National Organization for Student Success](#)

The Teaching Professor

The Teaching Professor Conference is a three-day event focusing on a wide range of topics. Presentations are designed to help faculty improve student outcomes. Topics included: DEI, Teaching Specific Student Populations, Course Design and Technology.

[The Teaching Professor Conference](#)

Community College Research Center (CCRC)

CCRC offers a free, virtual summer institute for community colleges, entitled, “[Using Data to Launch Large-Scale Reform.](#)” The goal of the institute is to “help participants build the skills and knowledge needed to lead college-wide student success efforts at their institutions using the guided pathways framework, which aims to help students choose, enter, and complete programs aligned with their goals for careers and further education.”

[Community College Research Center](#)

Publisher Resources & Webinars

Knowingly, the goal of textbook companies offering professional development is to drive their product sales. However, if a college has adopted a particular company's textbooks, then the college might want to consider this option. Furthermore, the publisher resources can offer ideas or insights for faculty and staff to develop their own professional development training.

English

Hawkes Learning

Resource: [FreeDigital Guide: The Art of Building a Successful Corequisite Course](#)

Description: Primary considerations and popular models of corequisite courses: Just-In-Time, Fast-Track, Independent, and Accelerated Learning Program.

Webinar: [Corequisite vs. Traditional English Composition Courses](#)

Description: Emily Maddox, Rowan College Gloucester County - This session discussed the structure and curricular design of a 4-credit corequisite course providing embedded supplemental coursework for students struggling with foundational English concepts.

Webinar: [Accelerating Underprepared Students through English Composition](#)

Description: Sarah Quinn, English Product Specialist - This session is a demonstration of the Hawkes educational product, English Composition with Integrated Review. However, the context of the presentation is how software can be an "effective advocate for the underprepared student."

Macmillan

Resource: [Corequisite Resources for English Instructors](#)

Description: Website hub containing resources for corequisite instructors including professional development opportunities, teacher camps, and course software options for the corequisite classroom.

Webinar: [Fostering Student Self-Efficacy through Academic Roles in Corequisite Courses](#)

Description: Rebecca Miner, Kristina Gladfelter, Erinn Metcalf, & Brenda Woods - This session discusses a holistic student learning approach, focusing on individual student needs and agency to help underprepared writers.

Webinar: [Multimodal Editing Strategies for Multilingual Writers in Corequisite Courses](#)

Description: Miriam Moore - This session discusses strategies for engaging with multilingual writing students using a scaffolded, multimodal approach.

Pearson

Webinar: [Teaching Corequisites Online](#)

Description: Mari Menard, Lone Star College-Kingwood - This session explores the challenges of delivering corequisite writing instruction in an online format and covers planning considerations for successful implementation.

Math

Hawkes Learning

Webinar: [Integrating Study Skills into Corequisite Courses](#)

Description: Dr. Paul Nolting, Learning Specialist + author of *Winning at Math*

This session highlights the benefits, including reduced test anxiety and self-efficacy, of embedding study skills into corequisite math courses.

Webinar: [Core Principles of Implementing a Co-Requisite Model](#)

Description: Holly Ayers, Arkansas State University – Newport - The presenter shares their success story of a two-year implementation process for a corequisite math program.

Pearson

Resource: [Corequisite Course Solutions for Math & Statistics](#)

Description: Resources for planning and implementing corequisite math courses.

Webinar: [The Many Faces of Co-Requisite Remediation](#)

Description: Mike Sullivan III, Joliet Junior College - This session discusses successful corequisite math course models and provides suggestions for implementation and assessment.

Webinar: [Corequisite Math Courses: The Ins & Outs and What We've Learned](#)

Description: Professor Trisha Sholar, Tulsa Community College; Professor Randy Gallaher, Lewis & Clark Community College - Faculty share their experiences with corequisite math courses and offer insight on what went well and ideas for continued improvement. ■



CHAPTER 3:

Pedagogy & Student Support

There are many different approaches to corequisite education, and each institution must consider their own campus-specific needs and their student populations in determining which model is best.

Regardless of the structure of the course, there are guiding principles informed by research on which all corequisite curricula should be based. These principles, or established best practices, are born from the robust and rigorous field of Developmental Education—a field whose practitioners and scholars have laid the foundation for the corequisite course structures so many institutions are now adopting en masse.

Models for corequisite education:

- Paired courses (accelerated: 8 wk dev course + 8 wk gateway course)
- Paired courses (simultaneous enrollment)
- Gateway course + required tutoring (or other form of academic support)
- Gateway course + small support course (ALP)
- Gateway course + full-sized support course (with or w/o embedded tutors)
- Gateway course + tech-mediated support course

Pedagogy & Student Support

Offer Just-in-Time Support

Take a streamlined approach to the curriculum in which you only provide students with the immediate review necessary to succeed in the particular topic or task associated with the gateway course. Instructors should make sure to explicitly connect the work of the support course to the current work of the gateway course. Corequisite courses should offer support specific to both individual students and to the paired gateway course tasks. Instructors should remain flexible and responsive to students' individual needs, rather than committed to a predesignated sequence of topics.^{28,29}

In other words, don't front-load skills in which you assume students have a deficit. Engage them immediately with the college-level work and tasks of the gateway course and address needs as they arise and always in the context of the college-level coursework.

In Practice:

Math:

- Consider creating short prerequisite videos and homework assignments that students view and complete prior to the introduction of a new topic in the gateway course
- Offer brief in-class reviews of necessary prerequisites, allowing time for active practice, prior to introducing new material
- Administer short, frequent formal assessments of prerequisite skills that are low-stakes

English:

- Communicate the purpose of each assignment in the support course and make explicit connections between scaffolded tasks and gateway course curriculum
- Address grammar, and other lower-order concerns, in the context of the writing students produce for the gateway course
- Provide additional scaffolding for writing tasks in the gateway course and break longer assignments down into component parts
- Be responsive to specific student needs, rather than fully committed to a predetermined sequence of topics (BE FLEXIBLE!)

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Be Both an Instructor and a Coach

Peter Adams, often credited with creating one of the first iterations of corequisite education at Baltimore County Community College, observed the success students had in writing studio classes, where they could get together, alongside an instructor as mentor, and speak informally about writing. This low-stakes environment provided students an opportunity to seek meaningful guidance from their instructors and to practice the literacy tasks for which they would have to demonstrate competency in the gateway.³⁰

Good corequisite instruction should involve a combination of both teaching and coaching. Teaching involves presenting new concepts and providing meaningful examples, whereas coaching involves guiding students through active learning and encouraging higher order thinking and processing of topics. The corequisite classroom allows instructors to serve in both roles.³¹

This is particularly important in corequisite courses, where developmental education experts aim to help students acculturate into higher ed. Coaching can help bring students into the fold of academic work, can help them develop more meaningful relationships with faculty in their first-year courses, and can ease them into independent mastery of the material.

“Our goal [in the classroom] is to serve as coaches, circulating and observing as students engage with the course material.”

– Hern and Snell³²

In Practice:

Math:

- Use tools like guided notes or lecture slides to provide students with guidance as to how to take and organize quality notes in order to have something to reference if they need to refer back to resources after a lecture
- Review enough examples to implement the new skill in a few slightly different scenarios
- Embed “you try it” problems for students to try the skill during lecture to give the students and teacher feedback on how well students are absorbing material currently being taught
- Create meaningful active and/or collaborative learning tasks that are low stakes so students can build their confidence before leaving class
- Provide adequate required practice on topics to be completed outside of class and provide in class time for students to get help on questions on homework during class time
- If embedded tutors are feasible, they are a huge asset with a proportionally small financial cost. Tutors can be students or staff, and they can allow for more coaching coverage during active learning.
- Coaching can be a step used in helping students better understand how foundational math concepts are connected and interdependent.

English:

- Use frequent one-on-one conferences and check-ins to offer formative feedback in response to student writing
- Allow plenty of time for open-ended questions, both about the gateway course and about students’ transitions into college at large
- Offer debriefing sessions, allowing students to informally talk through new concepts or assignments in the gateway course, asking for clarification or expressing concerns
- Provide ample time for low stakes practice, allowing students to lead the way while instructors stand on the sidelines, serving as a mentor when needed

Consider the Noncognitive

Hunter Boylan, a leading scholar in developmental education, argues that, “Students fail to do well in college for a variety of reasons, and only one of them is lack of academic preparedness.” He and others in the field have long acknowledged that students with developmental placements need far more than just an attempt to “remediate” what is often perceived as an absence of academic skill necessary to succeed in their gateway courses.³³

Study, interpersonal, and social skills, as well as the ability to self-advocate, are necessary for college success. Corequisite teachers need to purposefully plan to not only teach effective skills, along with their subject matter, but also to make a focus on noncognitive factors, such as study skills and note-taking, time management, navigating institutions of higher education, identifying and making use of college resources, developing students’ sense of efficacy and agency, and fostering a sense of belonging, a central and integral part of any corequisite course.³⁴

In Practice:

- Forge strong relationships with student services such as advising, tutoring, and financial aid, and, if possible, have a representative from those resources visit your classroom and talk to students about the support they provide
- Make links to student services easily accessible on your course homepage, and refer to them regularly throughout the semester
- Model note-taking skills for students, demonstrating how experts within your particular discipline approach this task
- Have students make weekly schedules, and openly discuss the time commitment required to succeed in their particular courses, accounting for time spent outside of class
- Provide collaborative learning experiences in your classroom and explain how groups can work together effectively
- Explore various mindset theories, such as Dweck's "fixed" vs. "growth" mindset, and ask students to evaluate their own educational histories through the lens of these theories
- Create assignments that ask students to evaluate their own epistemological beliefs, posing questions such as: Where does knowledge come from?; What is intelligence?; and How do we learn?
- Provide students plenty of opportunities to meaningfully participate in rigorous academic tasks, modeling critical and analytical thinking

Allow for Active and Collaborative Learning

Active learning activities, when connected to broader learning goals, have been shown to increase student engagement, foster knowledge transfer to other contexts, and promote inclusion in corequisite courses, particularly among first-generation and minority students. Students who engage in active learning often practice higher order thinking skills and create, or co-construct, knowledge. These activities increase the likelihood that students will retain new knowledge and, as it often focuses on "deep" rather than "surface" learning, transfer it to other contexts.³⁵

The nature of active learning activities vary greatly in terms of time commitment and scope. Although some activities can span days or weeks, active learning can often be done briefly in a single class session. While some active learning strategies entail students working independently, many involve collaborative learning in pairs or small groups. These activities usually work best when students are given a clear objective and the instructor explains how the activity connects to course learning goals.

"Focusing on collaborative practice means handing over control. Student activity—rather than faculty instruction—becomes the primary focus of class time."

– Hern and Snell³⁶

In Practice:

Math:

- Offer students frequent chances to practice skills learned, collaborate, and reflect on their learning with at least one other classmate
- Make test preparation a group activity - perhaps having students create a study guide in class collaboratively

English:

- Use collaborative discussion activities such as think-pair-share
- Have students participate in both peer review and group writing workshops as they work through the various steps of the writing process
- Begin support class with an opening session in which students explore and identify areas of confusion, report their understandings - discover answers together and receive support from peers [*focus on learning not teaching*]
- End support class with a brief 1-minute written reflection about questions, responses to texts/concepts, etc.

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Use Research-Based Strategies for Critical Feedback

Many students who are placed into developmental education courses have previously received - either explicitly or implicitly - feedback that they are not good at academic work. As teacher feedback can often leave students feeling overwhelmed and doubtful of their abilities and thus more likely to dismiss or ignore it, instructors should consciously think about ways their feedback can shape student beliefs about their learning. Research-based feedback strategies (“wise feedback”) create recursive opportunities for instructors to help students counter negative beliefs about their abilities and promote a sense of academic belonging, as well as meet their learning goals and succeed in gateway courses.³⁷ “Wise feedback” has been shown to be especially effective for students who face negative race-based stereotypes about their ability to succeed. Students are much better positioned to learn from critical feedback when they can trust that the teacher’s criticism is not evidence of bias and that they are being held to the same standards as all students.

Students need to know that “productive struggle” is an essential part of learning and that they can expect to be challenged. Additionally, new research increasingly suggests that student perception of an instructor’s mindset about learning may be very impactful on student outcomes. That is, students are more likely to succeed when they believe that their instructor possesses a “growth mindset” or “learner mindset” that presumes that all students can make strides in their learning with effort and guidance, rather than a “fixed mindset” that presumes that one’s potential is not malleable. The “In Practice” suggestions following offer feedback strategies that communicate to students that their intelligence and academic abilities are malleable and can be developed.^{38,39}

In Practice:

- Indicate to students that the work of the course(s) is challenging and that the assessment standards are high, while also expressing a clear, authentic statement of belief that students are capable of meeting those standards. [Two sample phrases from academic research: “I am giving you these comments because I have very high expectations and I know that you can reach them” and “The expectations in this course are high, and I know you can do great work. The feedback here is designed to help you get there.”]
- Avoid vague praise (such as a general “Nice job!”); be specific and sincere with compliments. [“I see you are improving on X and making an effort to use the strategies we talked about in class.” or “You are improving.”]
- Keep in mind that inauthentic or excessively positive praise can fuel student distrust or perceptions of low standards.
- Offer specific recommendations for improvement (and, as appropriate, create opportunities for students to receive additional feedback after they complete revisions or other work).
- Let students know your expectations for what actions they should take with the feedback - consider activities/ assignments that ask students to respond to the feedback and engage their metacognitive awareness of their learning journey
- Give students no more than 2-3 areas to focus on for improvement as to create achievable goals: sometimes less is more.
- Allow students opportunities to reflect and correct their own work as a low-stakes activity in order to encourage growth mindsets.

Let Informal Assessments Inform Instruction

Regular informal assessments such as classroom assessment techniques (CATs) provide instructors opportunities to monitor student learning and inform their instruction. These assessments are typically ungraded, quick, and informal; they are not used to evaluate individual students and can be conducted anonymously. Particularly because effective corequisite education necessitates that instructors assess and respond to their students’ learning needs on an on-going basis, informal assessments like CATs are a recommended practice. A recommended strategy is to use a few selected methods in a regular rotation, as to prevent the activities from becoming stale. Limiting the overall number of assessment types can help create a predictable routine and reduce the mental load of learning new procedures.⁴⁰

In Practice:

- Use *red light*, *green light*, *yellow light* signals to gauge how well students understand a new concept from the gateway course
- Ask students for a ticket out of the gateway course, where students note a question or concern they wish to be addressed in the support course
- Have students write *minute* papers in response to a new concept or text, which can help seed discussion and can give instructors an opportunity to assess student understanding
- Ask students to identify the *muddiest* point from a new lecture, text, or assignment
- Use technology-based tools such as Kahoot, Padlet, or Flipgrid to engage students and solicit responses during live classes, either online or in person

Integrate Reading and Writing

Decades of literacy research shows that reading and writing are reciprocal literary tasks, employing the same cognitive processes. It follows that students should be taught both active reading and academic writing in the context of one another, rather than in isolation in discrete, stand-alone reading and writing courses. Integrated Reading and Writing (IRW) courses aim to merge these tasks in ways that mirror “real world” literacy activities, often using text-based and meaning-centered instruction, rather than decontextualized and rigidly sequential skill-building that often prevents students from seeing the meaningful connections between approaches to both reading and writing.⁴¹

In Practice:

- Develop curricula that focuses on text-based, rather than skill-based, activities
- Emphasize metacognition, asking students to think explicitly about the relationship between reading and writing and developing assignments that help demonstrate the connection between the two
- Make use of course themes, allowing for a meaning-centered approach to literacy tasks and allowing all reading and writing activities to center around a shared idea. Some commonly used themes in first-year writing courses: definitions of success, education, racial justice, etc.
- Use text-based writing assignments, such as journal entries, summaries, rhetorical analyses, and critical response essays
- Illustrate the ways in which both literary tasks are reciprocal (ex. teach the writing process and the reading process alongside one another)

Set High Expectations

Maintaining a culture of high expectations and designing developmental curricula that is rigorous not only better prepares students for the work they will be expected to do in their gateway college-level coursework, it also helps to counter the stigma and self-doubt that plagues so many students who place into developmental coursework during their first years of college. Corequisite courses must allow students ample opportunity to practice the kinds of critical thinking expected of them in college-level courses, rather than attempt to remediate them by teaching what might be perceived as discrete, lower-level skills.

“Bottom line, we believe that, regardless of their mastery of discrete procedures or grammatical rules, students need to enter the world of ideas that higher education represents and be welcomed into its conversations-in-process.”

– Hern and Snell⁴²

In Practice:

- Task students with higher-order thinking whenever possible
- Use college-level reading and writing assignments, assuming that students will be able to successfully engage in these tasks with the targeted support and practice for which a corequisite allows
- Include writing in the mathematics classroom, asking students to explain processes or reasoning in words
- Assign challenging tasks, with support and scaffolding, which gives students who bear the stigma of being “developmental” or “remedial” an opportunity to reconceptualize their own academic ability
- Focus on participation and not preparation, asking students to participate in the kind of college-level tasks they will be doing in credit-bearing classes
- Set clear expectations for course attendance and due dates

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Create an Inclusive and Culturally Responsive Classroom

Many students with developmental placements have experienced systemic racism and marginalization, and as corequisite courses are likely their entry-point into higher ed, our classrooms must be equity-minded and inclusive. Otherwise, we miss an integral opportunity to ensure our students' identities, perspectives, and voices are not only validated, but also centered and valued.

“Even though some of us might wish to conceptualize our classrooms as culturally neutral or might choose to ignore the cultural dimensions, students cannot check their sociocultural identities at the door, nor can they instantly transcend their current level of development. Therefore, it is important that the pedagogical strategies we employ in the classroom reflect an understanding of social identity development.”

– Ambrose et al.⁴³

Research shows that these culturally responsive practices can radically improve student motivation, arm students with a sense of agency and belonging, and can lead to measurable increases in both persistence and completion.⁴⁴

In Practice:

- Be aware of and regularly challenge your own biases
- Acknowledge and attempt to mitigate the effects of stereotype threat
- Attribute outcome disparities to breakdowns in institutional performance rather than exclusively to student deficits or behaviors
- Examine how your own identity, assumptions, and values influence your approach to teaching, particularly with students who have developmental placements
- Select course content, materials, and texts that validate and reflect students' diverse identities, perspectives, and experiences
- Work to de-center yourself as the instructor, especially in the support course, and allow for student voices to be a central component of the course
- Embrace an asset-rich mindset when conceiving of student ability and developing curricula ■

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In Closing

The Partnership for College Completion continues to seek out opportunities to support Illinois post-secondary institutions as they navigate implementing the mandates of HB2170.

We strive to fill in the gaps where institutions might have limited resources to uplift their equity initiatives. As we look to the future, we hope to expand and build on our support of institutions during the DERA implementation phase. The Partnership continues to collaborate and consult with ICCB and IBHE, to provide insight into what they believe will be the next version of support that institutions will receive.

One of the ways in which we support our Illinois colleges and universities is through our signature Illinois Equity in Attainment Initiative (ILEA), launched in 2018. This community of practice provides direct and urgent action with a group of two-year and four-year, public and private non-profit colleges and universities across the state. These 25 institutions publicly commit to PCC's goal to eliminate racial and socioeconomic disparities in student outcomes with urgency and prioritize increasing completion rates on their campuses overall.

In the future, PCC will add additional equity-centered supports for colleges and universities across the state.

ILEA Colleges and Universities

1. [Blackburn College](#)
2. [Chicago State University](#)
3. [College of DuPage](#)
4. [College of Lake County](#)
5. [Elgin Community College](#)
6. [Governors State University](#)
7. [Harold Washington College*](#)
8. [Harper College](#)
9. [Harry S. Truman College*](#)
10. [Joliet Junior College](#)
11. [Kennedy-King College*](#)
12. [Kishwaukee College](#)
13. [Malcom X College*](#)
14. [Moraine Valley Community College](#)
15. [Morton College](#)
16. [National Louis University](#)
17. [Northeastern Illinois University](#)
18. [Northern Illinois University](#)
19. [Oakton Community College](#)
20. [Olive-Harvey College](#)
21. [Richard J. Daley College*](#)
22. [Roosevelt University*](#)
23. [Saint Xavier University](#)
24. [Waubonsee Community College](#)
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*City Colleges of Chicago

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Worksheets and Planning Tools

Scaling Corequisite Supports

Looking at Data to Plan for the Future

Guiding Questions

Please select someone from your team to take notes during this session, and feel free to use this Google doc to capture your discussion. This is specific to your institution and for you and your team members to be able to refer back to if needed.

The discussion here aligns to items in Sec. 100-30.(1), (2) and (3) required by the DERA ([110 ILCS 175/](#)).

- 1. What are the current developmental education efforts currently underway at your institution? (English language? Mathematics pathways?) At what stage of implementation are they?**
- 2. What are the current placement policies at your institution?**
- 3. What still needs to be scaled across the institution? (Think about different components - leadership, institutional commitment, communications, course design/implementation, data and evaluation, professional development)**
- 4. If you have disaggregated student throughput data on hand, what do the data suggest to you? What are the implications for scaling? Do adjustments need to be made? If you don't have the data on hand, what steps will you need to take to get it?**
- 5. What else do you need to know in order to move forward?**

Corequisite Scaling Action Plan

Task	Person Responsible	Support Needed	Budget Implications	Due Date

Illinois Developmental Education Reform Act (DERA) Corequisite Support Model Self-Assessment

This document combines aspects of two tools to help colleges and universities assess their current level of effort toward developing, implementing and scaling an effective corequisite support model for developmental education - 1) the Institutional Readiness Assessment adapted from the tool developed by The Charles A. Dana Center at The University of Texas at Austin, and 2) the Developmental Education Practices: Scale of Adoption Self-Assessment (DE SOAA) adapted by the Michigan Community College Association from CCRCs Scale of Adoption Assessment for Guided Pathways. The Institutional Readiness assessment describes leadership commitments and structures for communication, data analysis and resource allocation that should be in place as the institution scales its corequisite support program. The DE SOAA describes the design principles and specific practices found in fully scaled corequisite support programs. Both tools have been modified from their original form in order to fit Illinois' context and process for developing work plans required by Illinois' Developmental Education Reform Act (DERA) ([110 ILCS 175/](#)).¹

Colleges completing this assessment are committed to scaling a corequisite support program for introductory, credit-bearing courses in English language and mathematics, including all components listed here along with appropriate placement practices.

For the purpose of this document, **fully scaled corequisite support programs** are understood to incorporate at least 80 percent of sections or new students and satisfy the criteria below. (While the following are not specifically required by DERA, these are elements of a fully scaled corequisite support program and strongly recommended.)

- Aligned to broad groups of programs or meta-majors.
- Aligned to program requirements of transfer and K–12 partners.
- Includes a default pathway for undecided students based on data on the programs that students are most likely to enter.
- Ensures that default placement for students in degree granting programs is into a gateway course with supports as needed.
- Students enroll in a gateway course (with corequisite support, if needed) in their first 15 hours, or in their first 30 hours if assigned to both developmental English and mathematics.

This combined assessment tool is intended to be used as a precursor to the Illinois Developmental Education Reform Act (DERA) Plan Template. The template’s design mirrors the assessment’s below and provides a work plan to turn the assessments into action steps with specific responsibilities and timelines.

Who should complete this tool? Since this assessment looks across functions at an institution, it is intended to be completed in consultation with a team of individuals and not one person. The individuals should include institutional leaders, administrators directly connected with the English and mathematics programs (deans, chairperson, division head, etc.), English and mathematics faculty, corequisite coordinator, director of advising, and institutional researcher.

Institutional Readiness Assessment²

This tool highlights activities, structures and policies that are important to identify during planning stages of corequisite implementation and scaling. Completing this tool as you begin your design and implementation work will provide a framework of your current context from which to make decisions about next steps.

Each light blue section describes an important focus area when undertaking this work and is followed by a description in the first column of what this focus area looks like when implemented at scale. In the second column, indicate at which level your college or university currently sits. You should respond to each item using the scale provided, seeking input from others as appropriate. Comments in the third column should be brief (e.g., bullet points or short sentences) about any particular assets or challenges your state or region has that may influence this work.

Elements marked with an asterisk (*) are considered crucial foundational components and should be prioritized in your planning process.

Focus Area & Description at Scale	Scale of Adoption at Our College / University	Evidence for Rating
Leadership Support and Institutional Commitment: <i>Establish a well-supported leadership team and ensure support at all levels of the institution.</i>		
<ul style="list-style-type: none"> • Top administrative leaders (president, provost, vice presidents, deans, etc.) have a complete understanding of and are committed to full implementation and scaling of corequisites.* 	<input type="checkbox"/> None at this time <input type="checkbox"/> Emerging <input type="checkbox"/> In progress	
<ul style="list-style-type: none"> • A leadership team with representatives of diverse stakeholders (e.g., administration, advising and student services staff, credit-level and developmental faculty) is established with a clear charge and defined roles and responsibilities.* • Individuals across the institution in a variety of roles can explain why and how the institution is implementing full scale corequisites and can describe their role in the implementation process. • Administration, faculty, staff and students have a deep understanding of and support for corequisite supports and understand how corequisite implementation is a critical component of this work. 	<input type="checkbox"/> Well developed <input type="checkbox"/> Fully implemented	
Communications: <i>Plan for communication and engagement over time.</i>		
<ul style="list-style-type: none"> • Leaders communicate to the full institutional community a strong and clearly defined commitment to the goals and redesign efforts.* • The leadership team has an established process to set short-term communication and engagement goals, plan strategies and activities to meet those goals, and then evaluate and revise periodically.* • Team has effective processes to solicit and disseminate information, including measurable progress toward goals, to different stakeholders (e.g., in-person meetings, webinars, forums, website, email distribution list, blog). 	<input type="checkbox"/> None at this time <input type="checkbox"/> Emerging <input type="checkbox"/> In progress <input type="checkbox"/> Well developed <input type="checkbox"/> Fully implemented	

²Adapted from the “Corequisite Mathematics Toolkit.” The Charles A. Dana Center at The University of Texas at Austin.

Focus Area & Description at Scale	Scale of Adoption at Our College / University	Evidence for Rating
<ul style="list-style-type: none"> Team provides tools and opportunities to practice and improve communications to prepare individuals to communicate about corequisite courses effectively. 		
Data & Evaluation: <i>Gather and review information on the current institutional landscape.</i>		
<ul style="list-style-type: none"> The leadership team uses data to define the problem, identify, strengths, opportunities and challenges: <ul style="list-style-type: none"> Data on student performance: <ul style="list-style-type: none"> Attrition and throughput in the developmental pipeline Enrollment in credit-bearing English language and mathematics courses (<i>req. by DERA</i>) Rates of successful completion of introductory college-level English language and mathematics courses (<i>req. by DERA</i>) College credit accumulation (<i>req. by DERA</i>) Placement Retention beyond the gateway Completion of degree or certificate <p>(These data should be disaggregated by race and ethnicity, <i>as required by DERA</i>, as well as gender, Pell, and age, and inspected for gaps in equitable access to and success in college level courses.)</p> <ul style="list-style-type: none"> Data on faculty preparation:* <ul style="list-style-type: none"> Which instructors are credentialed for gateway courses? Which developmental instructors are prepared to support statistics students? What is the demographic composition of the faculty? Qualitative information about institutional processes, policies and culture that impact faculty, staff and students, which may either support or hinder implementation of corequisites. Include assessment of campus climate and student sense of belonging. 	<ul style="list-style-type: none"> <input type="checkbox"/> None at this time <input type="checkbox"/> Emerging <input type="checkbox"/> In progress <input type="checkbox"/> Well developed <input type="checkbox"/> Fully implemented 	
<ul style="list-style-type: none"> Research and effective practices from external sources. 		
Resources: <i>Allocate resources to support implementation.*</i>		
<ul style="list-style-type: none"> Resources (time and funding) are identified for: <ul style="list-style-type: none"> Supporting the leadership team with release time, resources, professional development and collaboration. Supporting faculty as they develop and implement courses. Lead faculty are provided release time for design and development. Roles and responsibilities of advisors and other staff providing additional support are restructured to allot time for effective service. Consistent and continuous professional learning is provided for faculty and staff. 	<ul style="list-style-type: none"> <input type="checkbox"/> None at this time <input type="checkbox"/> Emerging <input type="checkbox"/> In progress <input type="checkbox"/> Well developed <input type="checkbox"/> Fully implemented 	

Scale of Adoption for Developmental Education Practices³

When completing the section below, use the following definitions as a guide to assess your institution's scale of adoption.

Scale of Adoption	Definition
<i>Not occurring</i>	College is currently not following, or planning to follow, this practice
<i>Not systematic</i>	Practice is incomplete, inconsistent, informal, and/or optional (include small pilots here)
<i>Planning to scale</i>	Practice is in place for $\geq 25\%$ of new students or sections offered, with plans to continue scaling
<i>Scaling in progress</i>	Scaling is in progress with $\geq 50\%$ new students experiencing the reformed practice
<i>At scale</i>	Practice is implemented at scale—in place for $\geq 80\%$ of sections or new students

Scaling Focus Area & Description at Scale	Scale of Adoption at Our College / University	Progress to Date Implementing Practice (If Scaling in Progress or At Scale, please indicate which term (e.g., fall 2015) the college first reached this point)
English Language Courses		
a. The college prioritizes completion of the first college-level English language course within the first year of enrollment for all students.*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
b. The college has removed prerequisite English/writing/reading requirements that present barriers to students completing common introductory credit-bearing courses in meta-majors or programs of study in their first year of enrollment.	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
c. Students identified as needing developmental education in reading and writing can complete their first college-level English course with corequisite support.*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
d. Intensive support is provided to help students identified as needing additional services to maximize their ability to complete gateway courses and succeed in their first college-level English language course as soon as possible.	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
e. The college places students directly into introductory English language courses using multiple measures aligned with the recommendations linked here: http://www2.iccb.org/academic_affairs/baccalaureate-transfer/final-placement-recommendations/ (community colleges only)*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
Mathematics Pathways		
a. The college prioritizes completion of a college-level mathematics course in a pathway appropriate to the student's selected meta-major or program of study within the first year of enrollment for all students.*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
b. The college has removed prerequisite mathematics requirements for common introductory courses in	<input type="checkbox"/> Not occurring	

³ Adapted from Michigan's Developmental Education Scale of Adoption Assessment, revised February 2022, <https://www.mcca.org/Support-for-MDEPR>.

Scaling Focus Area & Description at Scale	Scale of Adoption at Our College / University	Progress to Date Implementing Practice (If Scaling in Progress or At Scale, please indicate which term (e.g., fall 2015) the college first reached this point)
meta-majors or programs of study that present barriers to students.	<input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
c. The college has taken steps to align introductory mathematics courses with meta-majors or programs of study to redirect students away from the preparation for calculus pathway if their selected program will not require completion of calculus.*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
d. Students identified as needing developmental education in mathematics can complete the first college-level course in the <i>quantitative reasoning</i> pathway with corequisite support.*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
e. Students identified as needing developmental education in mathematics can complete the first college-level course in the <i>statistics</i> pathway with corequisite support.*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
f. Students identified as needing developmental education in mathematics can complete the first college-level course in the <i>preparation for calculus</i> pathway with corequisite support.	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
g. Intensive support is provided to help students identified as needing additional services to maximize their ability to complete gateway courses and succeed in college-level mathematics courses as soon as possible for every pathway.	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	
h. The college places students directly into gateway mathematics pathway courses using multiple measures aligned with the recommendations linked here: http://www2.iccb.org/academic_affairs/baccalaureate-transfer/final-placement-recommendations/ (community colleges only)*	<input type="checkbox"/> Not occurring <input type="checkbox"/> Not systematic <input type="checkbox"/> Planning to scale <input type="checkbox"/> Scaling in progress <input type="checkbox"/> At scale	

Developed by SOVA Solutions for the PCC Corequisite Scaling Workshop Series

Problems of Practice Protocol - For use by TEAMS

(modified from IHEP Modified Consultancy Protocol)

The consultancy exercise is structured to help teams think expansively about a particular, concrete dilemma. A dilemma is a puzzle: an issue that raises questions, an idea that seems to have conceptual gaps, or something about a process or strategy that you just can't figure out.

This exercise should take approximately 30 minutes per presentation/discussion. Once the full exercise described below is complete, then switch roles with the other institutional team. In the time allotted for this segment, you should be able to complete two challenge discussions.

Getting started: Select a presenter and timer and begin!

1. Initial Presentation of the POP [3 minutes]: POP Team

One team member presents a quick overview of the problem of practice with which their team is struggling, and frames focused questions for the advisory team to consider.

2. Clarifying Questions [5 minutes]: Advisory Team and Guests

Advisory Team members ask questions of the presenters that have factual answers of a phrase or two in length. They ask the presenters "who, what, where, when and how much" questions. Clarifying questions do not include "why?" or "what other approaches have you considered?" questions. The purpose of clarifying questions is to help the questioner better understand the presenters' situation.

3. Probing Questions [5 minutes]: Advisory Team and Guests

Response group members ask questions of the presenters that help the presenters clarify and extend their own thinking about the matter they have presented to the group. The group asks open-ended questions such as: "why...?" "what other approaches have you considered regarding...?" or "what do you think would happen if...?"

4. Advisory Team and Guests Discussion [7 minutes]

The Advisory Team members talk with each other while the presenters listen and take notes; the presenters are not allowed to speak at this time (except to answer a clarifying question if one arises). The POP Team turns off their cameras and attends to listening and notetaking without providing any kind of response to the speakers. This separation often feels awkward but it is only for a few minutes and the benefits can be substantial. Advisory team members aim to discuss the situation and possible ideas about solutions. It is important for the presenters to listen carefully and in a non-defensive manner.

5. POP Team Response into Open Discussion [5 minutes]

The POP Team responds to what the Advisory Team said in the previous section. The purpose of this section is not for the presenters to respond to everything the response group members said. Instead, the purpose is for the presenters to talk about what they heard that was most important to them, and any thoughts or questions that were stimulated by the group discussion. Once the presenters have responded to their own satisfaction and wish to engage in a more

free-flowing dialogue, they indicate so to the group by explicitly saying that they are ready to discuss additional comments, ideas and questions.

6. Reflection / Debrief [5 minutes]

The POP Team begins this section. It's important to give all participants a chance to discuss their observations of and feelings about the process.

Adapted from The Coalition of Essential Schools and the Annenberg Institute for School Reform

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