

Carnegie Math Pathways Corequisite Results Webinar

Responses to Common Questions

Below are responses to questions posed during the webinar. We will continue to expand on these in the coming days.

Are all students required to take the corequisite?

These new offerings include a stand-alone college-level course with a corresponding corequisite course for both statistics and quantitative reasoning. Students could take only the college-level course. In fact, in non-cohort designs, a college-level class could be populated with some students who are in the corequisite course additionally and some that are not. The institutions on the call, however, all used cohort models where only students needing developmental support enrolled.

Can you elaborate on Cohort model?

In the case of these corequisite courses, we are referring to a cohort model where the same faculty member teaches both the college-level and corequisite portions of the course to the same group of students.

A faculty member mentioned that her students are enrolled in 6 hours and so she can be fluid with those hours for college vs support content. Can you explain this further?

Yes, these students were part of a cohort where the same faculty member taught both the college-level and corequisite portions of the course to the same group of students. This allowed her additional flexibility to decide which materials would be covered in each class.

Did faculty implementing the 6-credit hour corequisite courses receive push back or support from faculty in other departments? I am concerned about extra credits and how that will impact students' schedules.

[From webinar panelist Kelly Kohlmetz] It was not additional credits for us. Faculty have been impressed with students only needing one semester rather than an entire year. We did have some push-back about having to fit six-credits into schedules in one semester (art & music students have a lot of required studios, etc to take). However, the pass rate convinced advisors to find the room for it.

Can Ellen explain why they are cutting from 6 to 5 hours?

[From webinar panelist Ellen Mulqueeny] Our preference was 6 credits, but since we are offering this as one seamless course I couldn't get approval for a 6-hour math course, so we settled on 5.

Are these courses conducted in a computer lab?

Some work can be done in a computer lab, but typical Pathways classes are held in rooms that can support students working together in small groups at tables or moveable desks, and where faculty can move around the classroom.

How are non-cognitive skills developed in your corequisites? Are they included in graded assignments?

Many students enter into math courses with a belief that they are not a math person or that they don't belong in the classroom at all. Statway and Quantway instruction is embedded with student support practices and tools to counter socio-emotional factors that limit success. Known collectively as Productive Persistence, these



focus on helping students develop a growth mindset toward learning, build strong learning strategies, and nurture community and belonging in the classroom.

These supports are woven into the lessons themselves and instructor support resources. There are also selfregulated learning questions embedded in the at-home portions of the lessons, which are available for the instructor's information and not counted towards the homework grade.

How do you address student resistance to talking about non-math material?

Students typically find motivation in having non-math, real world, authentic contexts to discuss and give meaning to what they are learning as they work through and struggle with math concepts. These contexts increase engagement and deepen learning. As faculty noted on the webinar, there may be a bit of resistance to this process of student engagement at first and to the new style of collaborative learning in general; however, once students become more familiar with and begin to see the value of learning in an applied context, that trepidation dissipates and students actually enjoy it.

How did you handle Math Labs that support students?

[From webinar panelist Kelly Kohlmetz] If this is referring to a tutoring sort of situation, you will need to work with them to make sure the helpers understand the format. I have a tutor sit in on my class once per week (twice weekly is ideal) to understand the group work and discussion format - which is very different than other math courses.

Do any schools have classes that are lower than Quantway Core? And how are they integrated with Quantway?

As discussed on the webinar, some schools do have prerequisite courses before Quantway Core for students who place below a certain level. (Note that each institution that implemented CMP Corequisites employed their own placement methodology to determine students' required remediation. Carnegie Math Pathways courses do not stipulate specific methods to determine whether a student is required to enroll in the developmentallevel corequisite course).

Another resource available to students needing additional support is the Carnegie Math Pathways Fundamentals lessons. These aim to bolster students' proficiency with the prerequisite mathematical skills and understanding, such as basic arithmetic, needed for success in the Pathways. They have been used as prerequisites to or as support materials within Quantway Core or the first term of Statway pathway.

Has anyone doubled instructional time in a quarter-system? Going from five instructional hours to ten was not feasible at my institution for various reasons.

Institution E (see report) offered Statway Corequisite over two quarters, each with 5 contact hours. The first quarter provided 5 non-transferable units and the second provided 5 transfer-level units. The combined course offering was available only to students needing developmental support, and it was administered as a single course with no separate enrollment for the corequisite portion.

The Statway Pathway has been done in accelerated administration with high levels of success, including quarter systems. More details on this can be found in <u>this report about Accelerating Statway.</u>



Are any schools providing information about a corequisite model for Quantitative Reasoning I and Prealgebra?

This is an important topic, but was not covered as part of the webinar or in the new report. As mentioned above, Fundamentals lessons have been used as support material with Quantway Core or the first term of Statway pathway. Data on how this has been accomplished and the subsequent results is still being collected.

We cannot use a placement test for anyone who has a standard diploma from a public school any time after 2007. HB 1720 required us to accelerate, contextualize, and coreq. We have checked the box on acceleration and contextualization. Unfortunately, co-req is a hard sell. Any tips, hints on how to get administrative buy in?

We're not aware of the reasons behind the lack of support for coreq. We do recognize that evidence about the effectiveness of coreq has been slowly building. We're hopeful that this recent report will provide compelling evidence to the field about the positive impact of the corequisite model.

[From webinar panelist Kelly Kohlmetz] We showed data. Find data from other institutions (WestEd can help with that) and about what is going on in other states. The coreq movement seems to be growing. If possible, you do NOT want the legislatures, administration or anyone not in mathematics, telling you which math courses should be offered and how. YOU know what is best for your students. We wanted to be ahead of the curve so that we could design and pilot something that would work for our students - before being told we HAD to do it a certain a way.

How are you training faculty - are they workshops, on-going mentoring, etc.?

All Pathways faculty receive support through intensive initial preparation training available in-person, online, and through virtual webinars, one-on-one mentoring with an experienced Pathways faculty member, online resources and forums, and in-person meetings. <u>Click here to read more about our networked community</u>.