

Students in the career and technical training programs at St. Philip's College were struggling with the math in their courses, requiring faculty to divert teaching time to remediate students' math skills in the classroom. The Applied Sciences Division and the Math Department teamed up to create a Math Bridge Program for trade students who are identified as "not college ready." With EdReady at its core, the program ran concurrently with the trades courses. Students who completed the bridge program passed their trades courses at higher levels than students who had been identified as college ready and who had entered the trades courses without the benefit of the bridge program.

### INSTITUTIONAL PROFILE

St. Philip's College is a public, two-year community college in San Antonio, Texas, that is federally designated as both an HBCU (Historically Black College and University) and a Hispanic-serving institution. It currently offers over 120 workforce degree and certificate programs, as well as academic degrees and transfer degrees to four-year institutions.

### IMPLEMENTATION

Many of St. Philip's College's career and technical training students were struggling with the math in their courses. Low ability in foundational math skills, low level of confidence, and a lack of awareness of the resources they could use to increase those skills meant that the faculty for those courses often had to remediate math skills in the classroom, cutting into the time needed to teach the actual subject.

"Math classes are not a part of some of our trades, vocational, or technical programs of study," notes Paula Englebert, Math Lab Coordinator at St. Philip's College. "Yet if you've ever been involved in looking at blueprints, if you've been on a construction site, if you've had to convert between different units of measurement, you know there's a substantial amount of math involved in the trades."

Some students were dropping out of the courses. "They weren't successful, they had to re-take classes, and this obviously cost our students money, cost them time, and it definitely impacted their motivation" says Englebert.

Searching for a solution, in 2016, the Applied Sciences Division and the Mathematics Department created a



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#### DETAILS

**WHO WAS SERVED:** Students entering a two-year college for career and technical training

**WHEN:** Fall 2016 and Spring 2017

**NUMBER OF STUDENTS:** 1,175

**IMPLEMENTATION:** Co-requisite math support alongside entry-level trades courses

**RESULTS:** Students identified as not-ready-for-college used EdReady in a math bridge program and passed their trades courses at higher levels than students deemed college-ready who entered those courses without having used EdReady.

**INSTRUCTIONAL APPLICATION:** Co-requisite, lab-based online math support

summer program where students deemed not-ready-for-college (primarily based on their Texas Success Initiative scores) were invited to go to campus to prepare for their Fall 2016 trades classes and take a refresher math course using EdReady. That strategy proved less effective than they had hoped, as few students participated and even fewer completed the program.

The school made changes immediately after the end of that first summer, deciding to run the EdReady-based Math Bridge Program concurrently with the entry-level classes in the fall. Using input from advisors, department chairs, faculty members, and even some of the original summer students about the content that students needed assistance with, they developed a broad overview for each of the programs and determined the common math needs for the majority of students.



*Paula Englebert, Math Lab Coordinator,  
St. Philip's College, San Antonio, Texas*

The Math Bridge Program staff also compared content in EdReady to knowledge needed to succeed in college-level courses. They did that to ensure that students in the Math Bridge Program using EdReady were provided with learning experiences that they would find useful if they moved into those college-level math courses.

The staff also streamlined the EdReady diagnostic assessments, reducing the time students needed to complete them from 60-90 minutes down to 25-45 minutes. This meant that, during the initial week of the semester, the faculty could bring the students to the math lab to take the initial assessment. This was a win-win situation. Students learned where the lab was and they could put a face to the facilitator, and it gave the faculty and the math bridge coordinator a chance to meet.

“Our Math Bridge Program now consists of two basic modules,” says Englebert. “The initial diagnostic assessment, and the second module is to actually complete the study path in EdReady. Students can choose to use the program purely to earn their Math Bridge Program completion certificate to the level of their own program, or they can go further in their studies to explore options leading to college-level math courses. This gives the students the control over their learning that they might not otherwise have had and often they go further than they are required for their course.”

## RESULTS

In Fall 2016, 94.4% of the not-college-ready students who finished the Math Bridge Program passed their trades courses successfully (earning an A, B, or C), versus 92.8% of students who had been deemed college ready and so were not required to participate in the bridge program.

In addition, in Spring 2017, 92.3% of the not-college-ready students who completed the Math Bridge Program passed their trades course (earning an A, B, or C,) versus only 86.6% of those students who had been deemed college ready and were not required to participate in the bridge program. Students who were required to participate in the bridge program but did not complete the program passed at a rate of 82%, while those who were required to participate (but didn't) only passed at a rate of 60.6%.

## WHAT'S NEXT?

Now in the planning stages for Summer and Fall 2018, St. Philip's College will be expanding the Math Bridge Program to support additional trades and vocational programs of study. They bridge program committee is also working on creating highly specialized mini courses on topics or units with content specific to certain trades that could be offered in a modular or workshop format. And they are looking into offering access to EdReady to students upon registration for college math courses to allow them time to brush up on their skills prior to, or concurrent with, those courses. ■

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*“I thought this was going to be a waste of time, but when I started to do the [EdReady] assessment, I realized how much I had forgotten. It did not take long to get through the entire program and it was definitely worth it as a refresher. I needed it.”*

— Collin W., Student, St. Philip's College, Fall 2016