

# ST. PHILLIPS COLLEGE

## HBCU-UP TIP Grant: STEMed PROJECT Summative Evaluation Report



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Completed by

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## Executive Summary

In 2016, St. Philip's College (SPC) in San Antonio, Texas, was awarded a four-year National Science Foundation, Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) Targeted Infusion grant. Using the grant funds, SPC developed the college's Science, Technology, Engineering, and Mathematics Enrichment by Design (STEMed) Project, currently ending its final year of implementation. STEMed is focused on decreasing the time first-time college (FTIC) or veteran students take to complete their STEM degrees and graduate. The project gives college students academic support via developmental math courses and mentoring. The program's goal are as follows:

**Table 1: STEMed Objectives- Status as of June 2020**

Objective	Status
Goal 1 Objective 1: Recruit 20 FTIC or veteran STEM students from San Antonio Independent School District (SAISD) and the local community each semester for a total of 120 students over the grant period. SPC defines "each semester" as fall August – December, 16 weeks; spring January – May, 16 weeks; and summer May – August, 10 weeks.	Partially Met  (57 students were recruited over the grant period)
Goal 1 Objective 2: Award student incentive laptops with Maple software at the end of each semester based on completion of AMPP.	Met
Goal 1 Objective 3: Mentor all 20 current AMP Program participants weekly and all former AMP Program participants two times per semester (before enrollment and after midterms).	Met
Goal 2 Objective 1: Implement the AMPP to decrease the number of semesters needed for developmental math by one year (2 courses) by the end of the program (16 weeks for fall and spring, 10 weeks for summer	Met

At the conclusion of Year 4, the STEMed Project has demonstrated significant progress in meeting its goals and objectives. In particular, the project did a strong job of reducing degree completion time for enrolled AMP students. Our analysis also finds that STEMed has been successful in offering high-quality math instruction, and that students are satisfied with the instruction and support they have received. An additional finding is that passing rates for



Intermediate Algebra, Elementary Algebra, and College Algebra were all high, and Pre-Calc is the class where students were most likely to struggle. In addition, it can be seen that student math skills have increased substantially over the course of the program as evidenced by gains in ALEKS test scores. Areas where the program had room for improvement were in recruitment and in engaging outside evaluators at the outset of the project. Lastly, our research shows the program did a strong job in adapting program offerings in light of the Covid-19 pandemic.



## Introduction

In 2016, using a National Science Foundation's (NSF) Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) Targeted Infusion Project (TIP) grant, St. Philip's College (SPC), a two-year Historically Black College and a Hispanic Service Institution in San Antonio, Texas, began the *Targeted Infusion Project: Science, Technology, Engineering, and Mathematics Enrichment by Design (STEMed) Project*. The intent of grant was to promote and implement educational innovations through the use of modularized, emporium model instruction, and the revolutionary learning program using knowledge space theory: Assessment and Learning in Knowledge Spaces (ALEKS).

SPC's STEMed project has completed the final year of the grant. STEMed aimed to recruit, retain, and provide math acceleration for 120 first time in college (FTIC) or veteran students as they matriculate through their STEM degree program. The project hoped to increase the number of students graduating from SPC, transferring to a four-year institution to continue their STEM education, and/or entering the workforce upon completion of the project.

Therefore, the STEMed Project aimed to enhance undergraduate STEM education at SPC, by focusing on increasing the success rates of first time in college (FTIC) African-Americans, Veterans, and other traditionally underrepresented students including students from the Eastside Promise Zone,<sup>1</sup> and lowering their degree completion time by strengthening their skills in developmental math.

## Overview of STEMed Project

The STEMed project was housed under SPC's Center of Excellence for Mathematics and the Mathematics Department leadership. Implementation began during the 2016 – 2017 academic year (Year 1) and continued for four years until the 2019 – 2020 academic year (Year 4).

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<sup>1</sup> The Eastside Promise Zone encompasses 19 contiguous census tracts with 64,125 residents classified as predominantly minority. This area is characterized by high poverty rates, inadequate access to high quality early learning programs, struggling schools, over-age students, low graduation rates, poor health conditions, insufficient or ineffective supportive services, inadequate employment opportunities, a shortage of quality affordable housing, high crime rates, and the lowest college enrollment rates in the city.



The project featured researched-based best practices, interventions, and strategies to decrease semesters needed for developmental math. The project objectives were aligned with SPC's Strategic Plan objectives<sup>2</sup>, as well as President Barack Obama's National Education 2020 goal of increasing college graduates with degrees in the United States by the year 2020. The primary purpose of the Targeted Infusion Project: STEM Enrichment By Design (STEMed) Project was to decrease the time FTIC or veteran students take to complete their STEM degree and graduate.

A linchpin activity of STEMed was the Accelerated Math Preparation Program (AMPP), which was offered in each fall, spring, and summer semesters to help FTIC or veteran STEM students advance into college level math. AMPP used the interactive, artificial intelligence platform Assessment and Learning in Knowledge Spaces (ALEKS), in addition to modular curriculum and emporium model instruction, to facilitate math skill development. Modifications to the program were made in Year 4 in light of Covid-19 disruptions. Due to Covid-19 the St. Phillips campus closed and classes were offered online.

The project's overarching goals and objectives that were tied to these activities are listed below:

**GOAL 1 – Recruit & Retain FTIC or veteran STEM students, with a focus on African American and other traditionally underrepresented students**

*Objectives*

1. Recruit 20 FTIC and veteran STEM students from SAISD and the institution's Veteran's office each semester for a total of 120 students over the period of the grant.
2. Award student incentive laptops with Maple software at the end of each semester based on completion of AMPP.
3. Mentor all 20 current AMP Program participants weekly and all former AMP Program participants two times per semester (before enrollment and after midterms).<sup>3</sup>

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<sup>2</sup> This project is directly aligned with SPC's Strategic Plan Objective 1, Student Success: provide academic and student support and align labor market-based pathways to achieve student completion.

<sup>3</sup> To further enhance the quality of the program, Goal 1 objective 3 was strengthened to ask students to meet with mentors weekly, as opposed to monthly as originally proposed.

## **GOAL 2 – Decrease the STEM degree completion time of FTIC or veteran STEM students**

### *Objectives*

1. Implement AMP to decrease the number of semesters needed for developmental math by one year (2 courses) by the end of the program (16 weeks for fall and spring, 10 weeks for summer).<sup>4</sup>

## **Evaluation**

SPC contracted with MN Associates, Inc. (MNA), a minority, woman-owned small business in Fairfax, VA, towards the end of year four of the grant, to serve as STEMed’s external evaluator. As soon as they were contracted, MNA took charge of all the data collected thus far and completed evaluation reports for all years of the grant. A mixed methods approach was adopted to complete the evaluation. MNA engaged in periodic online correspondence with project staff in order to receive access to meeting materials and data/records. MNA was selected to conduct a retroactive evaluation using extant data, as the project’s original evaluator is no longer working on the project. Data yielded will inform future decisions regarding the implementation of this educational project in meeting its objectives and outcomes. Data are in an aggregate and no personal identifying information is used in the report.

Program documentation consists of student and faculty files from a database set up exclusively for the STEMed Project, with information on all program participants in Year 4. The database houses demographic information, high school designation regarding economically disadvantaged status, and ethnic group per existing public data source of the Academic Indicator Excellence System reports. Data on STEM course completion, productive grade rates, graduation and transfer rates were gathered from the Institutional Planning, Research and Effectiveness Office (IPRE), the STEMed Project database and the National Student Clearinghouse. Student surveys were also used to measure qualitative and quantitative outcomes, and staff surveys were distributed to illicit feedback on their program experiences (see instrument in appendix). All students who

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<sup>4</sup> The course sequence was changed from Math 0305 Basic Mathematics (a 4.33-hour course) and two Math 0100 Special Topics (two 1-hour courses) to four co-enrollment courses: Math 0410 Pre-Algebra (a 4.33-hour course) + Math 0320 Intermediate Algebra (a 3.66-hour course) + Math 1414 College Algebra (a 4-hour course) + Math 2412 Precalculus (a 4-hour course). This change did not affect the goals or objectives only the number of contact hours funded by the college.



completed AMPP coursework were given surveys to share feedback on their course experience (see instrument in appendix), and staff were given surveys as well (see instrument in appendix). Lastly, AMPP students completed pre and post ALEKS assessments, to gauge changes in their math skills over time.

## Summary of Findings

Below in Table 1, Year 4 project activities for STEMEd are outlined. Project activities and data are discussed further below and tied to the project’s explicit goals and objectives to determine to what extent the program made progress in Year 4, and throughout entire project’s history.

**Table 2: Overview of Project Activities in Year 4**

Activity	Participants	Completed
Recruit FTIC and Veteran STEM students	16	Yes
Implement AMPP courses	16	Yes
Mentor participants regularly	16	Yes
Award student incentive laptops	9	Yes
Administer student survey	16	Yes

### **GOAL 1: Recruit & Retain FTIC or veteran STEM students, with a focus on African American and other traditionally underrepresented students**

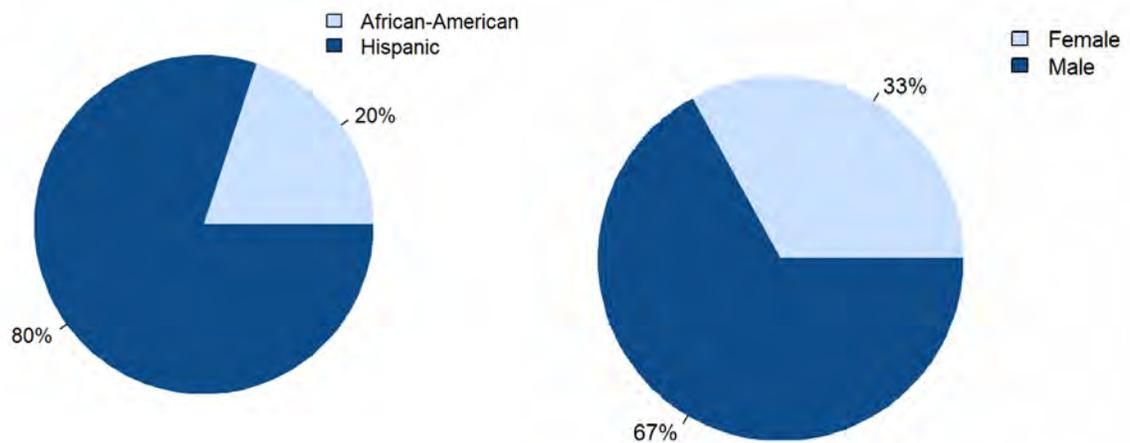
**Objective 1: Recruit 20 FTIC or veteran STEM students from San Antonio Independent School District (SAISD) and the institution’s Veteran’s office each semester until graduation, transfer, and/or entering the workforce.**

To recruit students for the STEMEd Project grant Co-PI, Maria Rodriguez, reached out to potential participants using a variety of avenues. A flyer developed by the PI and co-PI to advertise the program’s offerings was thoroughly disseminated. Information about AMP was distributed to SPC’s veteran’s office, multiple SAISD schools, and to college advisors. In addition, new students were reached out to during the college’s New Student Orientation. STEMEd also provided extensive information on the project on their website. Lastly, program staff contacted all STEM students (entering declared STEM major students) by phone and/or email to invite them to enroll in the AMPP just before Spring 2019, and in Year 4 before both Fall 2019 and Spring 2020 semesters.



During Year 4 of the grant, a total of 16 students participated in the program, ten during the fall 2019 semester and six during the spring 2020 semester. All sixteen students were FTIC students, while one was also a veteran student. The gender breakdown of AMP students was imbalanced, with the majority of students being male (81%). With respect to race/ethnicity most students were Hispanic (75%) and the remaining students were African-American (25%). Figure 1 provides a breakdown of students by race/ethnicity and gender across all four years of the program. The majority of participants were Hispanic (80%), and disproportionately male (67%).

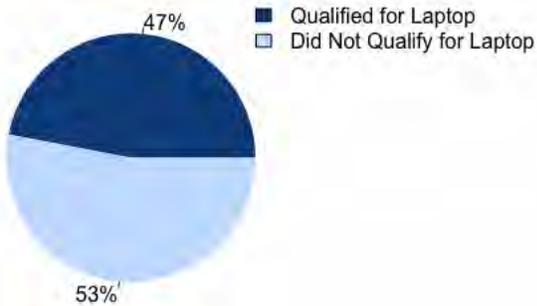
**Figure 1: FTIC or Veteran STEmed Students by Race/Ethnicity and Gender (N=57)**



**Objective 2: Award Student Incentive Laptop at the end of each semester based on completion of AMP.**

As an accolade for completion of all four AMP courses in one-semester (which decreases degree completion time by one year), students were awarded laptops with Maple software. The technology is meant to support students as they matriculate through their STEM degree program. At the conclusion of Year 4, 47% of all students from Years 1 through 4, qualified for laptops. The majority of students who qualified for laptops have already received them, with the exception of two students who have been ordered laptops for spring 2020. These students will have laptops distributed to them as soon as the computers are received and configured.

**Figure 2: Percentage of Students Who Received a Laptop (N=57)**



**Objective 3: Mentor all 20 current AMP Program participants weekly and all former AMP Program participants two times per semester (before enrollment and after midterms).**

During Year 4 each participant met with PI, Jessica Lopez weekly, adding to high participation levels seen in prior years. The meetings covered a host of topics including tutoring, course selection, student support services, degree planning, registration, and study skills. Due to Covid-19, modifications to mentoring meetings had to be made. One mentor had this to say in response to the question: “In what ways, did it change the way you mentor or advise your students?”

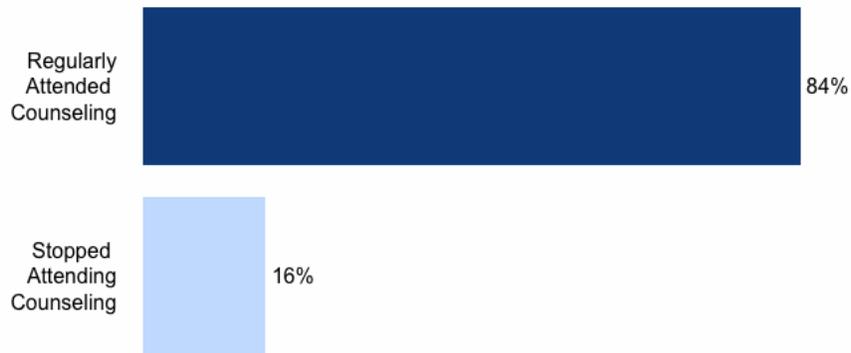
*“Most of my mentor/ advising sessions were done by text or over the phone before COVID-19. However, the small percentage that preferred face-to-face sessions before COVID-19, did have to convert to Zoom sessions after COVID-19. We still managed to get registration done this way, it just took a little more time.”*

*“I became more flexible with timelines and allowed students to keep working as long as they had the motivation, I will accept their work”*

Across all years of the program high mentoring attendance was found, with 84% of students regularly attending mentoring sessions (figure 3). This number is substantial and represents a strong suite of the program. More time is needed to determine whether consistent mentoring contributes to AMP participants graduating with STEM degrees. The program aims to see at least 25% of AMP students graduate with degrees in STEM. To date, six AMP students have graduated, of which one received a STEM degree in Computer Science.

**Figure 3: Mentoring Meeting Attendance Year 4 (N=57)**





**GOAL 2: Decrease the STEM degree completion time of FTIC or veteran STEM students**

**Objective 1: Implement AMP to decrease the number of semesters needed for developmental math by one year (2 courses) by the end of the program (16 weeks for fall and spring, 10 weeks for summer).**

AMP was thoughtfully developed by project PI, Jessica Lopez. The program includes four courses: Math 0410 Elementary Algebra, Math 0320 Intermediate Algebra, Math 1414 College Algebra (for Pre- Calculus) and Math 2412 Pre-Calculus, each of which were four weeks long. Courses used the Assessment, Learning, in Knowledge Spaces (ALEKS) system, a web-based learning tool that uses adaptive questioning to determine a student’s content knowledge, and give direction for areas that require more learning. The emporium model was also employed in classes, which is a computer-based learning system designed to help students be actively engaged in content mastery. Modularized curriculum was a third strategy used in AMP coursework. Through the modularized curriculum model students receive instruction in small discrete modules that are sequential<sup>5</sup>. In addition to the four math classes mentioned above, students were also offered one informal ALEKS course that spanned the entire 16-week semester which included material from all four classes. Students were given course grades at the end of each spring semester. Grades were based on completion of each courses’ respective ALEKS objectives and performance on the course’s final exam.

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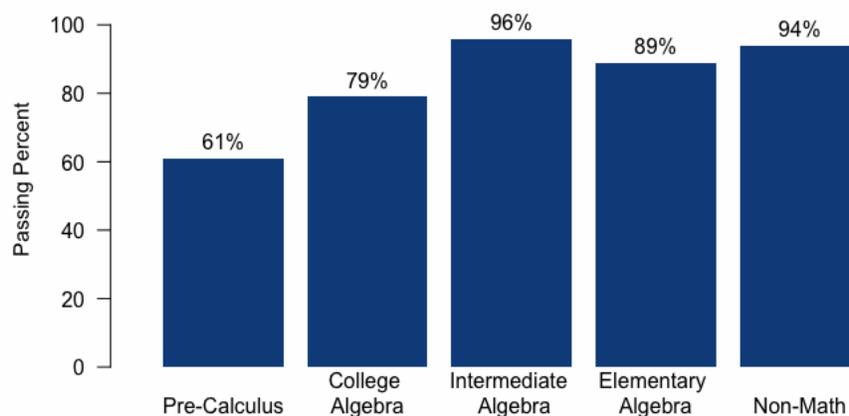
<sup>5</sup> Modules were non-sequential in Spring 2016, but sequential in all semesters thereafter in years 2-4.

As a result of Covid-19 in Year 4 classes were offered online. In sharing info on how COVID challenges impacted course delivery, one instructor shared these thoughts:

*“It affected my teaching in that I had to spend many hours recording my mini-lectures for student use. I also had to shift face-to-face classes to Zoom sessions (which are not the same) and had to text students daily versus communicating with them verbally in class every day. Despite my attempts to minimize the change, it was still an adjustment and some students were not able to adapt in time. I could not get student participation up to the level it was before the remote/online switch.”*

In Year 4, a total of 16 students participated in AMP courses, ten during fall 2019 and six during spring 2020. Year 4 course performance was high across all courses despite COVID challenges, with 100% of students passing Elementary Algebra and Intermediate Algebra. Eighty-eight percent of students passed College Algebra. In Year 4, unlike years prior, AMP students did not take Pre-Calc. Instead students took one non-math related course in their degree plan, of which 94% of students passed. Figure 4 provides a summary of how students academically performed in the courses offered throughout the entire duration of the program. Students performed best in Intermediate Algebra, where 96% of students passed. The lowest performance was in Pre-Calculus, with a pass rate of 61%. Pass rates for College Algebra and Elementary Algebra were moderately high at 79% and 89% respectively.

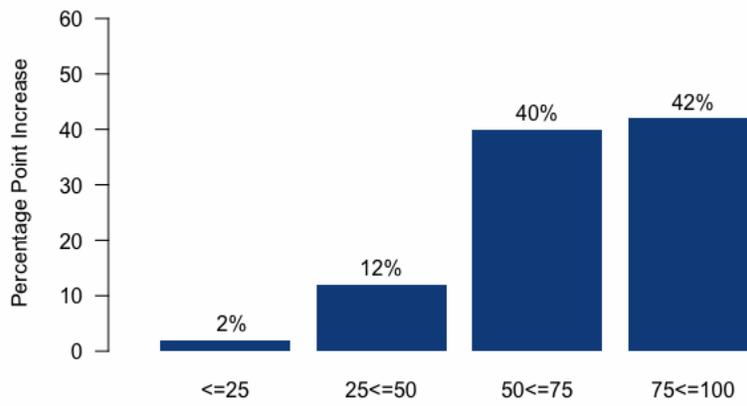
**Figure 4: Percent of Students Who Received a C or Higher in AMP Courses<sup>6</sup>**



<sup>6</sup> N-Pre-Calculus=41, N-College Algebra=57, N-Intermediate Algebra=57, N-Elementary Algebra=57, N-Non-Math=16

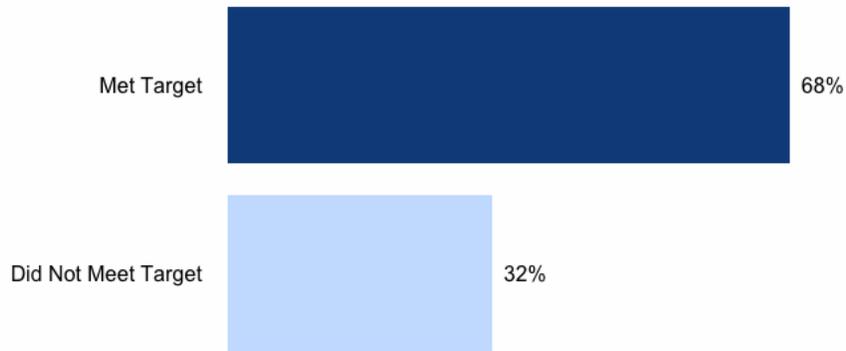
Student performance increased significantly during the program, as demonstrated by student's pre and post assessment ALEKS scores, which rose significantly across all years. The majority of student scores (82%) increased by at least 50 percentage points (figure 5) across the duration of the program<sup>7</sup>. In addition, students increased their ALEKS scores by an average of 78 percentage points in Year 4, which is a slight increase over the 75-percentage point increase in Year 3.

**Figure 5: Pre/Post Increase in ALEKS scores (N=57)**



In order to achieve the goal of decreasing the need for developmental math by one year, students had to pass Math 0410 Elementary Algebra, Math 0320 Intermediate Algebra, and Math 1414 College Algebra. At the conclusion of the AMP 68% of all AMP students across all years, met this goal and were able to sufficiently reduce their degree completion time (see Figure 6). This number represents a sizable share of students who are making significant gains in shortening degree completion time.

**Figure 6: Percent of Students Who Saved 1 Year of Degree Completion Time (N=57)**



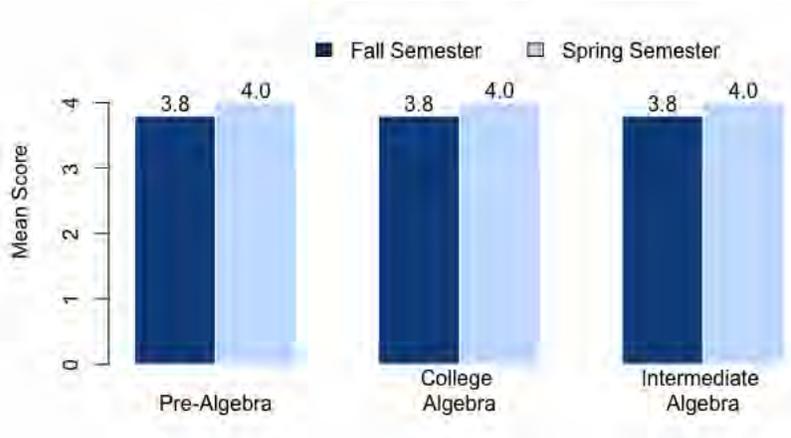
Overall, the program aims to see at least 25% of participants earn STEM degrees in less than four years. The high rate of students who saved a year of degree completion time, helps to facilitate the achievement of this goal. It is too early to tell whether students in later years have met this goal, but there is evidence that one student from Year 1 was able to reduce degree completion time as result of the program, and went on to earn a STEM degree.

Through surveys, AMP students provided feedback on their course instructors and were asked questions related to instructional design, instructional delivery, instructional assessment and course management (see appendix for survey questions). Ratings were on a four-point scale: 1) Strongly Disagree, 2) Disagree, 3) Agree, 4) Strongly Agree. For the most part students appeared to be satisfied with the quality of AMP math instruction offered. Figure 7 highlights student feedback in AMP math courses by course and semester. All math courses, had high average scores ranging from 3.8 to 4.0 in Year 4. This is in line with high instructor satisfaction throughout the program<sup>8</sup>.

**Figure 7: Student Rating of Instructors**

<sup>8</sup> How student feedback on instructors was measured differently across the span of the program, however all feedback was generally positive.

<sup>9</sup> N-College Algebra (Fall)=5, N-College Algebra (Spring)=3, N-Elementary Algebra (Fall)=5, N-Elementary Algebra (Spring)=4, N-Intermediate Algebra (Fall)=6, N-Intermediate Algebra (Spring)=4



Qualitative feedback from instructors corroborates quantitative findings. When asked to share information on specific things their instructor did well, students had this to say<sup>10</sup>:

*“Ms. Lopez made the transition of me being out of school for over 20 years seem like I hadn’t missed a Beat.”*

*“I like how she’s very sweet and kind to all her students and how she wants to help us all.”*

*“Being helpful and flexible.”*

An end-of-grant survey was sent to the PI and Co-PI. Due to scheduling conflicts, the evaluation team was unable to schedule a virtual focus group/phone interviews with the project staff. The survey asked questions related to project success(es), lessons learned, challenges faced (in the project and more so, due to COVID) and plans moving forward. Both the PI and Co-PI reiterated how the grant has greatly helped SPC students which would have been challenging otherwise. Specifically, they said

*“The successes of the grant were students did not have to go through 2 years of pre-reqs to enroll into calculus class (which is the first Math class needed for a STEM degree).”*

<sup>10</sup> Qualitative feedback was not available for each class, as some students did not provide feedback on this portion of the survey.

*“Students – greatly decreasing the number of semesters it takes to complete their math for a degree. Another success was finding students to engage in outside class/grant activities such as events.”*

*“The grant has helped students get pass(ed) through developmental courses faster and get to their college level courses in a more timely manner. We have also provided more one-on-one instruction that these students tend to thrive on. Motivating and being there on a daily basis was helpful.”*

*“Also, the AMPP and the advising/mentoring/tracking will continue after the grant. The grant participants will continue to receive the same support/mentoring/advising until graduation/transfer after the grant has ended.”*

Due to COVID, major changes/adjustments were made to the program that included adjusting the program by extending the time per each class, conducting more classes virtually (zoom) and document cameras. One of the major challenges faced due to the pandemic was their inability to get more students to fully engage/participate in the program. One response was

*“Students were used to daily interaction in the classroom and when it moved to remote learning, daily texts did not do the same as far as motivation. Regular Zoom meetings seemed productive but then students wouldn't spend as much time in ALEKS at home as they did in class. There were also recorded mini-lectures for each module provided but students rarely watched them. I believe they were just overwhelmed with all the changes both in and outside of class and some were unable to adapt fast enough. For this reason, two students received Incomplete grades and one received an In Progress grade.”*

Both PI and Co-PI agreed that providing hands-on advising/counseling to students was one of the most valuable things that they as advisors and instructor learned during the course of the grant. They stated that while some students may be more “open” to receive help and others not so much, this is an important attribute of the grant. One of the added

*“Having one resource who can walk you through things helps. I have received much verbal feedback to this manner during advising sessions. As an instructor, I plan to continue this type of follow up procedure in all my STEM classes especially now that I have learned to use Remind (a text messaging system). It has been very helpful in contacting students and produces faster response time.”*



## Summary of Findings

At the conclusion of Year 4/end of the grant, the STEMed Project has demonstrated significant progress in meeting its goals and objectives. In particular, the project did a strong job of reducing degree completion time for enrolled AMP students and adapting program offerings in light of Covid-19 restrictions. Our analysis also finds STEMed has been successful in offering high-quality math instruction, and students are satisfied with the instruction they received. An additional finding is that passing rates for Intermediate Algebra, Elementary Algebra, and College Algebra were all high, and Pre-Calc was the class where students were most likely to struggle. Lastly, it can be seen that student math skills have increased substantially over the course of the program as evidenced by gains in ALEKS test scores. Areas where the program had room for improvement were in recruitment and in engaging outside evaluators at the outset of the project.

## Broader Impact and Sustainability

The Mathematics Department at SPC has adopted the STEMed Project's Accelerated Math Preparation Program as a redesigned STEM math pathway. This pathway will be in the form of one four-hour college algebra math course with one three-hour co-requisite developmental course and will be called the STEM Immersion Co-requisite model. This model will be used at SPC in the 2020-2021 academic year and in preceding semesters. Once the final reports have been finalized, the results will be shared with the Alamo Colleges' Chairs Committee and available for duplication at all other Alamo Colleges beginning the 2021-2022 academic year.

The broader impacts of the project include pipelining STEM education for transitional students from high school and/or FTIC veterans into SPC. Further impacts consist of STEMed project being used as an institutional model for redesigning developmental math for STEM students. This will be achieved through the Sustainability Plan. Entering students are now given the opportunity to become college-ready and first college course complete in math in one semester. As a minority-serving institution designated as both a Historically Black College and University (HBCU) and a Hispanic-Serving Institution (HSI), the STEMed Project has served San Antonio's Eastside Promise Zone (EPZ). Sixty-eight percent of student grant participants have moved into college-level



mathematics courses in a shorter period than usual, therefore graduating sooner due to fewer semesters of math.

This reduction will increase number of students graduating from SPC, transferring to a four-year institution continuing their STEM education, and/or entering the workforce within an optimal amount of time. As SPC improves its STEM pathway by adopting and possibly refining the sustainability plan, STEM students from diverse backgrounds will obtain an increasingly quality education. The local community and nation will benefit from this increase in quality STEM education and the eventual increase in the number of future STEM professionals in the workplace.



## Appendix A: Student Survey

1. The instructor's class presentations were designed for easy note taking.
2. The course was well organized.
3. The course material appeared to be presented in logical content units.
4. There was continuity from one class to the next.
5. Course concepts were related in a systematic manner.
6. The course assignments were clearly specified
7. The objectives of the course were well explained.
8. The course objectives were clear.
  
9. The instructor's use of examples helped to get points across in class.
10. The instructor's use of technology, when appropriate, was effective.
11. The instructor was enthusiastic about the course material.
12. The instructor seemed to enjoy teaching.
13. The instructor's use of personal experiences helped to get points across in class.
14. The instructor puts material across in an interesting way.
15. The instructor stressed important points in lectures.
16. The instructor treated students with respect.
17. Exams were fair.
18. Course objectives were reflected in the exams.
19. The exams concentrated on important aspects of the course.
20. The exams were graded fairly.
21. The exams stressed the important points presented in class.
22. The types of test questions used in the exams were good.
23. The exams focused on issues discussed in class.
24. The exams helped me to track my progress in the course.
25. The graded assignments were returned quickly enough to benefit me.
26. The graded exams were returned promptly.
27. The syllabus for the course clearly explained the flow of the course.
28. I clearly understood what was expected of me in this course.
29. Classes were conducted in accordance with a prescribed



calendar or meeting schedule

30. The instructor was available during posted office hours.
31. The instructor adequately explained the grading system.
32. The instructor appeared to have the equipment or other materials necessary to conduct each class.



## Appendix B: Student Recruitment Flyer



ALAMO COLLEGES DISTRICT  
St. Philip's College

Science, Technology, Engineering and Mathematics  
Enrichment by Design Grant

**Want to complete your STEM degree fast?**



**Want a FREE laptop  
and scholarship?**

The goal of the STEMEd Grant is to decrease the amount of time it takes to earn a STEM degree from St. Philip's College by accelerating from developmental math to college level math in one semester.

#### Benefits:

- Graduate sooner!
- FREE laptop with Math/Engineering Maple software and scholarship opportunity upon completion of program!
- Instructional materials (book and software) fee is paid for by the grant.

#### Eligibility Requirements:

- St. Philip's College Home Campus
- Veteran student and/or first time in college and Under Represented Minority student
- U.S. citizen or permanent resident
- Prerequisite: Math TSI score 342+
- Pursuing one of the following degrees at St. Philip's College: (1) Biology, (2) Biotechnology, (3) Computer Science, (4) Engineering, (5) Mathematics, (6) Biomedical Engineering and (7) Mechanical Engineering.



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This material is based upon work supported by the National Science under HBCU UP (Award no. 1623270). This report was completed by MN Associates, Inc.

If selected, students are required to enroll in the Accelerated Math Program (AMP) also called STEM Immersion courses

Accelerated Math Program or STEM Immersion courses:

- MATH 0410
- MATH 0320
- MATH 1414
- ENGR 1201 or approved course

Total Enrollment: 12-15 hours

Classes run

Monday - Thursday  
9:00 am – 11:50 am



#### CONTACT

for application, CRNs  
and/or more information:

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Maria Rodriguez  
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(210) 486-7123

## Appendix C: Sample Counseling Log

STEMed Project Student Advising Log			
Name: [REDACTED]		Banner ID: [REDACTED]	Student 28
Date	Major	Purpose of Meeting	Notes
08/30/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
09/07/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
09/14/2018	Mathematics	AMPP Progress Update	You've complete Math 0410 Elementary Algebra! Work during the weekend on completing Math 0320 topics.
09/21/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
09/28/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
10/05/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
10/11/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
10/18/2018	Mathematics	AMPP Progress Update/Midterm Advising	You've complete Math 0320 Intermediate Algebra! Work during the weekend on completing Math 1414 topics. Student is on schedule to complete the AMPP on time!
10/25/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
11/02/2018	Mathematics	AMPP Progress Update	You met this week's goal. Work over the weekend to get ahead.
11/09/2018	Mathematics	AMPP Progress Update & Spring Registration	You met this week's goal. Work over the weekend to get ahead. Student did not wish to register for Spring 2019 at this time.
11/16/2018	Mathematics	AMPP Progress Update	You've complete Math 1414 College Algebra! Work during the weekend on completing Math 2412 topics.
11/21/2018	Mathematics	AMPP Progress Update	You will need to work during the weekend to complete this week's goal.
11/30/2018	Mathematics	AMPP Progress Update	Student has been absent.
12/07/2018	Mathematics	AMPP Progress Update	Student has been absent.
12/14/2018	Mathematics	AMPP Progress Update	Student has been absent.
03/04/2019	Mathematics	Midterm Advising	Student ended up registering for MATH 2412 but is not doing well. Resources have been provided.
04/08/2019	Mathematics	Summer/Fall Registration	Student does not wish to take Summer or Fall classes.
10/07/2019	Mathematics	Midterm Advising	N/A
11/04/2019	Mathematics	Spring Registration	No response to email, text, or voicemail.
03/23/2020	Mathematics	Midterm Advising	No response to email, text, or voicemail.



## Appendix D: Staff Survey

1) Are you full time/part time?

Full time  
Part time  
Other

2) Are you

Staff  
Faculty  
Other

3) What has been your role in the NSF-funded grant: STEMEd?

4) IF INSTRUCTOR: Prior to teaching the courses as part of the grant offering, did you receive any specific training and ongoing support from the project leads (e.g., Jessica Lopez or Maria Rodriguez or others)? Please provide details if you did.

5) IF INSTRUCTOR: Which courses did you teach?

6) What kinds of academic support did you provide to students? (IF APPLICABLE)

7) What kinds of non-academic support did you provide to students?

8) Due to COVID 19, campuses closed and classes were offered online. In what ways has this affected your teaching of courses OR how you support your students?

9) In what ways, did it change the way you mentor or advise your students?

10) In what ways has the grant helped your students? (e.g, retention, completion, performance, others)

11) Any additional comments?

