



## TEXAS REGIONAL STEM DEGREE ACCELERATOR

### STEM PATHWAY: HEALTHCARE AND INFORMATION TECHNOLOGY

#### Regional Team Members:

South Texas College:  
*Lead Institution*

The University of Texas  
Rio Grande Valley

Texas A&M University - Kingsville

Texas Southmost College

Brownsville ISD

Edinburg CISD

Mission CISD

La Joya ISD

McAllen ISD

Pharr - San Juan - Alamo ISD

Valley View ISD

Region 1 Education Service Center

Rio Grande Regional Hospital

South Texas Health Systems

VTXI

Workforce Solutions, Hidalgo

Workforce Solutions, Cameron

RGV Focus

### OVERVIEW

**About South Texas:** The four counties of the Rio Grande Valley area of South Texas are home to over 1.1 million Hispanics. In this region, education levels are lower and poverty rates are higher than the state average. In fact, the percentage of Bachelor's degrees and the per capita income are under half the statewide average.<sup>1</sup>

**Why Healthcare and Computer Science:** The top STEM occupations in South Texas are in the healthcare and informational technology sectors and demand in these professions is projected to increase in the coming years.<sup>2</sup> South Texas College (STC) is one of three community colleges in Texas authorized to offer bachelor's degrees and is developing a Bachelor of Science in Nursing (BSN) degree.

## STEM PATHWAY PLAN & INTERVENTIONS

The regional team's two pathways – Healthcare and Information Technology – will be strengthened through interventions designed to support students by: aligning classroom practices, fostering engagement and learning among faculty, sharing best practices among institutions, and integrating workforce data.

### MAJOR ACTIVITIES:

- 1. Develop Rio Grande Valley STEM Faculty Institute:** The regional team will develop a rigorous STEM Faculty Institute that promotes innovative instruction (particularly the Common Instructional Framework) and develops deep partnerships among regional institutions of higher education and employers.
- 2. Strengthen Leadership and Change Management for Faculty:** To make this project transformative, faculty will learn to advocate for change among colleagues, embed leadership into course curriculum, and incorporate workforce skills into teaching and learning.
- 3. Expand Dual Enrollment:** South Texas College offers dual credit to 23 school districts and 70 high schools. This project will allow STC to increase the number of high school students who can earn college credits that lead to a healthcare certification or a four-year degree.

### PROJECT IMPACT:

This project is anticipated to accomplish the following outcomes:<sup>3</sup>

- **Train** 132 college faculty and 69 dual credit teachers
- **Serve** 29,000 college students and 15,000 dual credit students
- **Produce** 7,800 certificates, 3,000 Associate and 2,700 Bachelor degrees

<sup>1</sup>U.S. Census Bureau QuickFacts (2010).

<sup>2</sup>Burning Glass. Labor Insight tool, (2014). Custom report for South Texas; South Texas College institutional data.

<sup>3</sup>Self-Reported Data.



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The Texas Regional STEM Degree Accelerator initiative is developed in alignment with priorities for education and workforce outlined by the Texas Higher Education Coordinating Board and the Texas Workforce Commission. This initiative is funded through the generosity of The Leona M. and Harry B. Helmsley Charitable Trust, The W.W. Caruth, Jr. Foundation, Council for Regional Economic Expansion and Educational Development, Greater Texas Foundation, JPMorgan Chase, and The Kresge Foundation.

### BACKGROUND & OVERVIEW

Texas is projected to have approximately 9% of the nation's future STEM opportunities, the second highest in the country.<sup>1</sup> At the same time, the state's rapidly changing demographic mix will pose challenges as Texas's growing, economically disadvantaged, minority students have less than a 10% postsecondary completion rate.<sup>2</sup> Therefore, the urgency to identify policy and programmatic strategies to meet this need is critical.

The Texas Regional STEM Degree Accelerator (STEM Accelerator) initiative is focused on supporting regional teams of education and workforce partners to increase the number of students who will earn a STEM credential.

### PROJECT GOAL AND STRATEGY

The goal of STEM Accelerator is to assemble regional teams who will ensure that up to 100,000 students earn STEM degrees and certificates (both two-year and four-year) that meet regionally-identified workforce needs. Regional teams will accomplish this by examining data, identifying the STEM pathway(s) in which they plan to work, and engaging faculty and workforce to:

- Redesign gateway courses in STEM pathways (re)aligned to workforce and/or
- Provide professional development for faculty to support improved and innovative methods of teaching and learning (such as active learning or project-based learning)

### EXPECTED IMPLEMENTATION OUTCOMES AND DELIVERABLES

The two major outcomes of this project are to:

1. Increase retention in STEM pathways by ensuring that STEM teaching practices are engaging and supportive.
2. Ensure that institutional policies and systems support retention and completion of STEM pathways, particularly among underrepresented students.

<sup>1</sup>Schleicher, A. (2012). Education At a Glance: OECD Indicators.

<sup>2</sup>National Center for Higher Education Management Systems (2012). A new measure of educational success in Texas.

The Texas Tribune (2014). Higher Ed Outcomes. Austin, TX.