



Riverside T-STEM Academy
T-STEM Renewal Application
2018-2019

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Background

District Affiliation

YSLETA ISD

DC #: 071905

Region: 19

Mailing Address (Line 1): 9600 SIMS DR

Mailing Address (Line 2):

City, State, Zip: EL PASO, TX 79925

School Affiliation

RIVERSIDE H S

CDC #: 071-905-005

Region:

Mailing Address (Line 1): 301 MIDWAY DR

Mailing Address (Line 2):

City, State, Zip: EL PASO, TX 79915

Academy Information

T-STEM Academy Name:

Riverside T-STEM Academy

What grade level range will your academy serve in the 2018-2019 school year?

6-12

Grade Level	Number of Students
7	29
8	54
9	107
10	125
11	65
12	70

Contacts

Business Partner

Affiliation: GRV Integrated Engineering Solutions, LLC

Job Title: Survey Project Manager

Full Name: Mr. Abel Ponce

Email: aponce@grvies.com

Phone Number: 915-867-3805

Superintendent

Job Title: Superintendent

Full Name: Dr. Xavier De La Torre

Email: XDeLaTorre@yisd.net

Phone Number: 915-434-0032

Applicant

Job Title: Principal

Full Name: Mr. Daniel Gurany

Email: DGurany1@yisd.net

Phone Number: 915-434-7001

IHE Liaison

Affiliation: Texas Tech University Health Sciences Center El Paso

Job Title: Associate Director | Office of Admissions, JAMP Medical School Coordinator

Full Name: Ms. Yolanda Betancourt

Email: yolanda.betancourt@ttuhsc.edu

Phone Number: 915-215-4407

IHE Liaison

Affiliation: The University of Texas at El Paso

Job Title: Director, Engineering Student Services

Full Name: Mr. Gabby Gandara

Email: gabby@utep.edu

Phone Number: 915-747-6945

Narratives

Model Implementation

Which T-STEM model does the district intend to implement at this time? Within these models, there are variations. For this purpose campus is defined as a CDC number not a physical location.

School-Within-School: Multiple Campuses - A subset of students in grades 6-12 are enrolled in the T-STEM academy. This model typically spans a middle school and high school. This may also be applicable if 9th grade is on a separate campus due to physical space issues.

Endorsements

Identify the current endorsements that are offered:

- Science, Technology, Engineering, and Mathematics (STEM)
- Business and Industry
- Public Services
- Arts and Humanities
- Multi-disciplinary Studies

Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
Cosmetology Operator License	Texas State Board of Cosmetology
ASE	Automotive Service Excellence
SBE Certified Television Operator and SBE Certified Radio Operator	Society of Broadcast Engineers
Adobe Certified Associate Digital Video	Adobe Certification
911 Dispatcher (IAED)	International Academies of Emergency Dispatch
I-CAR Pro Level 1	Inter-Industry Conference on Auto Collision Repair
Autodesk Certified User (ACU)	Autodesk / AutoCAD

Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
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Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description
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Key Elements for Success

Provide a link to the job description, roles of design team, leadership team, and advisory board.

<https://www.yisd.net/Page/13295>

Provide a link to your mission statement.

<https://www.yisd.net/Page/13295>

Provide a link to the final, signed, and executed MOU.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's master schedules.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's Student IGPs with CCRS and Performance Acknowledgement Plans.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's written admission policy and enrollment application.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's written recruitment plan including a timeline of recruitment and enrollment events, and recruitment materials for distribution at feeder schools and other appropriate locations in the community

<https://www.yisd.net/Page/13295>

Provide a link to the academy's description of instruction practices.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's STEM-focused extracurricular activities.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's internship and externship opportunities.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's Senior Capstone Project description.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's Student Portfolio Plans.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's Academic Literacy Plan.

<https://www.yisd.net/Page/13295>

Provide a link to the academy's Assessment strategy.

<https://www.yisd.net/Page/13295>

Free-Response

Describe how the Academy will recruit, support, and retain highly qualified teachers.

The current STEM program began as an initiative created by two teachers and an administrator. As the program has grown, an interest has been generated and there are currently sixteen teachers participating in the STEM program. It is the goal of the STEM leadership to create a campus culture wherein students and teachers alike are inspired to participate in the STEM program.

Teachers are encouraged to remain in the program through the opportunities provided for Professional Development. Over the past two years and through the Spring of 2018, the opportunities have included:

- PBL 101
- PBL for Administrators
- Flipped Classroom
- Student Developed Rubrics
- ELL Strategies in the PBL Framework
- Project Based Learning for Riverside HS, Riverside MS and Ramona ES
- Common Instructional Framework
- STEM Conference, 11th Annual, Feb. 2018, Galveston, TX (4 staff members attended)

The following opportunities will be provided this Summer, 2018:

- College & Career Readiness Models Leadership Summit, June 2018, (2 staff members)
- Career and Technology Association of Texas Summer Conference, July 2018 (2 staff members)
- On Ramps Training (4 staff members)
- College Board AP Training

Each STEM pathway has a set of lead teachers and staff. These groups have been tasked with developing our campus programs and working through the implementation of our pathways and activities. We meet several times during each semester to outline the specific details of each pathway, i.e., course selection, student recruitment and student monitoring. As PBL training continues to unfold, teachers will be collaborating on projects and aligning curriculum from 6th-12th grade. Half-day to full-day planning sessions are scheduled to allow the groups to work together and continue setting and meeting pathway goals.

In addition, the New Teacher Support Program is led by J. Blanca O. Lopez, Ph.D. from the Ysleta ISD Human Resource Department. Through this program, new teachers are assigned mentor teachers from the campus. Both groups meet with Dr. Lopez and with each other on a regular basis.

Describe the current STEM pathways available at the academy.

The Riverside High School T-STEM Academy offers several pathways to help prepare our students for College and Career Readiness. The goal of each of these pathways is to:

- Expose students to careers in the areas of STEM as related to each pathway;
- Promote a college-ready student by increasing the rigor and relevance of classes and introducing Project-Based Learning in all content areas; and
- Instill a campus culture of "College for All," by ensuring that students have access to participate in STEM-related activities and classes that would gear them towards post-secondary education.

The Theory of Change for our campus is that of promoting students' academic and emotional intelligence through a varied approach, including aligned academic classes, PBL projects that are content- and cross-curricular-based and activities that promote scholarship, leadership and student competence.

The Pathways offered at our academy include:

Engineering

- 9th PIT (Principles of Information Technology) or Principles of Applied Engineering
- 10th Principles of Technology or Robotics
- 11th Engineering Design and Presentation
- 12th Scientific Research and Design

Architecture

- 9th PIT (Principles of Information Technology) or Principles of Applied Engineering
- 10th Principles of Technology
- 11th Civil Engineering / Architecture I (3 Hours – 4 Class Periods)
- 12th Civil Engineering / Architecture II (3 Hours – 4 Class Periods)

Bio Medical Science

- 9th Principles of Health Science
- 10th Medical Microbiology
- 11th Anatomy / Physiology
- 12th Pathophysiology or Capstone Project

Physical Therapy

- 9th Principles of Health Science
- 10th Anatomy / Physiology
- 11th Sports Medicine 1
- 12th Sports Medicine 2

Computer Science

- 9th Principles of Computer Science (PLTW)
- 10th Computer Science (On-Ramps) (2018-2019)
- 11th Practicum in Information Technology I (Cyber Security - 2019-2020)
- 12th Practicum in Information Technology II (Cyber Security - (2020-2021)

Socratic – STEM Teacher Prep

- 9th Principles of Education and Training
- 10th Human Growth and Development
- 11th Instructional Practices (2 Credits)

12th Practicum in Education and Training (3 Credits)

Describe how strategic alliances with industry partners and IHEs will support the Academy. The description should include details regarding the role of each IHE, business, and/or community partnership; along with parent/family partnerships and communication conventions with the Academy.

Currently, our Advisory Board is comprised of strategic members from higher education and business and industry, including Texas Tech University Health Science Center, University of Texas at El Paso College of Engineering, University of Texas at Austin (On-Ramps), Workforce Solutions Borderplex, El Paso Electric and Texas Department of Transportation, to name a few. Aside from lending their expertise and volunteering their time, many of our board members have opened their businesses and organizations to our students for tours, job-shadowing, etc.

Our Texas Tech University Health Science partners have committed to help shape our BioMedical Science program through presentations, on-site visits and possibly internships in the future.

Many of our members serve as resources for projects or judges for competitive events. As the school year progresses, we will engage in activities that will further develop our students' skills and opportunities in STEM.

Describe the Academy's work-based and contextual learning in the curriculum.

The Riverside High School T-STEM Academy offers practicum-level courses and/or capstone projects in all of its endorsements. Through these courses and projects, students are engaged in contextual and work-based learning as they make connections between prior knowledge and skills gained through the coherent sequence of courses and its applications to their lives as individuals, family members, citizens, employees and entrepreneurs.

Practicum experience occurs in paid or unpaid arrangements and in a variety of locations appropriate to the nature and level of experience. In addition to part-time employment opportunities, students also participate in facility/business tours, job shadowing and internships. They also participate in presentations made by business and industry partners in the classroom, at business sites and during leadership and industry conferences. Through the use of problem-based learning, cooperative learning, project-based learning, service learning, and work-based learning, students are afforded the opportunity to explore a variety of careers, develop knowledge and skills related to their field of interest and make a successful transition to the workforce or post-secondary education.

Describe the STEM-focused extracurricular activities (field experiences, clubs, and competitions) offered to students.

The Riverside High School T-STEM Academy provides many opportunities to extend student learning to develop or further enhance leadership skills and skills directly related to a specific field.

Two of the Career & Technical Education Student Organizations that relate directly to STEM include SkillsUSA, and Technology Student Association. In addition, our campus offers a Vex Robotics Club and several leadership organizations such as National Honor Society and National Technical Honor Society, Student Council, and Future Business Leaders of America, among others.

Some of this year's activities include:

School Year Student representation on the T-STEM Advisory Board

10/06/17 SkillsUSA Fall Leadership Conference

10/25/17 Riverside Middle School Career Day

11/03/17 El Paso Chihuahuas & College of Architecture Facility Tours

11/08/17 RHS STEM Advisory Board Meeting

11/27/17 Regional STEM Meeting

02/03/18 RHS STEM Advisory Board Meeting

02/16/18 UTEP Engineering Tour

02/19/18 SkillsUSA Regional Events, District 1

02/21/18 RHS Feeder Pattern, STEM Showcase

01/27/18, 02/03/18, 03/03/18, Vex Robotics Regional/State Competitions

04/05/18-04/08/18, SkillsUSA State Leadership Conference, Corpus Christi, TX

04/23/18-04/24/18 STEAMx Competition through Workforce Solutions Borderplex

04/24/18 Vex Robotics World Championship, Louisville, Kentucky

04/24/18 Lockheed Martin Aeronautics Engineering in the Classroom (EITC) Community Outreach Youth

Programs Campus Presentation