



Robert Vela T-STEM Early College High School

T-STEM Renewal Application

2018-2019

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Background

District Affiliation

EDINBURG CISD

DC #: 108904

Region: 01

Mailing Address (Line 1): P O BOX 990

Mailing Address (Line 2):

City, State, Zip: EDINBURG, TX 78540

School Affiliation

ROBERT R VELA H S

CDC #: 108-904-006

Region:

Mailing Address (Line 1): P O BOX 990

Mailing Address (Line 2):

City, State, Zip: EDINBURG, TX 78540

Academy Information

T-STEM Academy Name:

Robert Vela T-STEM Early College High School

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

9-12

Grade Level	Number of Students
9	50
10	42
11	51
12	22

Contacts

Business Partner

Affiliation: Doctor's Hospital at Renaissance
Job Title: Senior Vice President Chief Operations Officer
Full Name: Ms. Marissa Castaneda
Email: m.castaneda@dhr-rgv.com
Phone Number: 956-362-3102

Superintendent

Job Title: Superintendent
Full Name: Dr. Rene Gutierrez
Email: rene.gutierrez@ecisd.us
Phone Number: 956-289-2300

Applicant

Job Title: Director
Full Name: Dr. Jennifer Mendoza-Culbertson
Email: je.mendoza@ecisd.us
Phone Number: 956-289-2650

IHE Liaison

Affiliation: South Texas College
Job Title: Director of Early College High Schools
Full Name: Ms. Sophia Pena
Email: sofia21@southtexascollege.edu
Phone Number: 956-872-2303

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 (SWS) - A subset of students on the campus are enrolled in grades 9-12 are enrolled in the T-STEM academy.

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
Adobe Certified Associate-InDesign	Certification for Adobe Certified Associate-InDesign for Designer, Print Designer
Adobe Certified Premiere Professional	Certification for Adobe Certified Premiere Professional for Motion Graphics/Animation, Video Editor
American Welding Society (D1.1)	This endorsement covers four subject areas in AWS D1.1, material and design, fabrication, inspection, and qualification. Subject weights for each of these areas are in conformance with the c
AutoCAD Certified Associate	Certification for the AutoCAD Certified Associate application
Apple Final Cut Pro	A certificate from Apple recognizing a skilled user of Final Cut
ASE - Automotive Maintenance & Light Repair	Certification for ASE - Automotive Maintenance & Light Repair for technicians performing maintenance and light repair services
ASE - Brakes	Certification for ASE - Brakes for various types of automotive vehicles
ASE - Electrical Systems	Certification for ASE - Electrical Systems for various types of automotive vehicles and machines
ASE - Engine Repair	Certification for ASE - Engine Repair for various types of vehicles and machines
ASE - Heating and A/C	Certification for ASE - Heating and A/C for HVAC systems
Basic Life Saver - CPR Certification	Provides certification on adult, pediatric and infant CPR, including two-rescuer scenarios and use of the bag-valve mask
Cosmetology	Provides certification for hair care, nail care, and personal hygiene
Certified Nurses Assistant	Provides CNA certification for elps patients or clients with healthcare needs under the supervision of a Registered Nurse (RN) or a Licensed Practical Nurse (LPN)
C-Tech Introduction to Net. Cab. - Fiber	Certified Fiber Optic Technician - is the FOA certification for general fiber optics applications

Optic	
Drilling & Well Completion Certification	Certification for Drilling & Well Completion for various typography locations, equipment, and safety
Edinburg CISD Substitute Certificate	Certification for substitute teaching with the ECISD
Emergency Dispatch Telecommunicator	Certification for 911 dispatch: Emergency Medical Dispatch (EMD), Emergency Fire Dispatch, (EFD), and Emergency Police Dispatch (EPD)
Emergency Medical Technician	Certification that student has the basic knowledge and skills necessary to stabilize and safely transport patients ranging from non-emergency and routine medical transports to life threateni
Internet and Computing Core-IC ³ Certification	Certification for digital literacy
Microsoft Office Specialist-Access	Certification of application mastery in Access
Microsoft Office Specialist-Excel	Certification of application mastery in Excel
Microsoft Office Specialist-PowerPoint	Certification of application mastery in PowerPoint
Microsoft Office Specialist-Word	Certification of application mastery in Word
Pharmacy Technician	The Pharmacy Technician certification provides the knowledge and skills needed to prepare, distribute, label and package pharmaceuticals, and to patients' medication profiles in specified
NCCER Construction Technology Level 1	The NCCER Core certification is an entry-level certificate for all construction related trades
Phlebotomy	The Phlebotomy Technician certification encompasses the knowledge and skills necessary to collect and handle blood specimens used in diagnosing and tracking illnesses, drug testing, or other
S/P2 Onilne University, Mechanical Safety	Certification for S/P2 Onilne University, Mechanical Safety
ServSafe Food Handlers	Certification for the safe handling of food and used in food service industries

ServSafe-Food Manager Certification	Certification for the safe handling of food at the management level and used in food service industries
Adobe Certified Associate-Dreamweaver	Dreamweaver 8 Developer represents a professional level of expertise in web page design, web page authoring, use of the Dreamweaver application and supporting technologies. It is one of the
Adobe Certified Associate-Illustrator	An Adobe Certified Expert is a person who has demonstrated proficiency with the Adobe Illustrator software product
Adobe Certified Associate-Photoshop CS5 (CS6)	An Adobe Certified Expert is a person who has demonstrated proficiency with the Adobe Photoshop software product

Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
Computer Application Specialist	The Computer Applications Specialist program prepares students to meet the demand for advanced skills and knowledge in some of today's leading business applications. Students completing this
Multimedia Specialist	The Multimedia Specialist Certificate is intended for students who are interested in the multimedia side of technology. In addition to gaining experience with business productivity software
Emergency Medical Technician	A student graduating with an EMT Certificate or Associate of Applied Science degree will be prepared to fill positions in Emergency Medical Services, Private Ambulance Companies, Air Ambulan
Computer Internet Specialist	This one-semester specialization will provide students with the foundation technical skills required in the use of computers and the Internet. Students will learn entry-level skills needed t

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.

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

Provide a link to your mission statement.

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

Provide a link to the academy's master schedules.

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

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

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

Provide a link to the academy's Assessment strategy.

<http://vela2.edinburg.schooldesk.net/TSTEM-ECHS>

Free-Response

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

Robert Vela TSTEM Early College High School's formal process of hiring teachers is the same as the Edinburg Consolidated Independent School Districts hiring process for all secondary educators. There is a concerted effort to hire educators with a Masters Degree in the content area in which they are assigned to teach. Additionally, qualifications of the IHE partner must also be met. At the 9th, 10th, and 11th grade levels, teaching staff that have a proven record of performance in meeting the academic, social, and behavioral needs of Robert Vela TSTEM ECHS students will be assigned. Robert Vela TSTEM ECHS will ensure that its teachers are highly qualified by providing access to professional development opportunities such as Advanced Placement Institutes and training, mentor program, summer institutes, and advanced academics training.

Robert Vela TSTEM Early College High School teachers will take part in regularly scheduled professional development provided by the partnering organizations. The institution of higher education will collaborate through an initial summer induction program that will emphasize instructional planning while providing the scheduling of team teaching opportunities and teacher mentoring. South Texas College is committed to providing adjunct and dual enrollment faculty training each academic semester as outlined in the Memorandum of Understanding. In addition, twice per semester, Robert Vela TSTEM ECHS faculty and staff are scheduled to supervise students in a South Texas College Day college visitation in which Robert Vela TSTEM ECHS teachers will have further opportunities to interact with STC full time faculty and mentors. Robert Vela TSTEM ECHS staff members will be highly encouraged to attend the South Texas College Distinguished Lecture Series with students and collaborate with STC faculty. Robert Vela TSTEM ECHS teachers will meet regularly with their assigned mentors who will provide guidance, support, and feedback on classroom observations, instruction, and development of course syllabi and timelines. Robert Vela TSTEM Early College High School teachers will meet with South Texas College personnel at the beginning of each semester to receive orientation and training to better align their course instruction.

Robert Vela TSTEM ECHS teachers will collaborate regularly in the development and planning of instructional activities, materials, and assessments. Robert Vela TSTEM Early College High School teachers will provide feedback to one another from planned classroom observations through the mentoring program throughout the school year. Robert Vela TSTEM Early College High School will provide ongoing professional development opportunities to teachers to improve their skills and knowledge in their content area, as well as, best instructional practices that promote critical thinking and problem solving skills in the STEM field.

Describe the current STEM pathways available at the academy.

Robert Vela Early College High School students will be provided an opportunity to select Career and Technical Education elective pathways and courses to support their STEM selections such as but not limited to: Animal Science, Oil & Gas Production Construction, Animation, AV Production, Commercial Photography, Graphic Design and Illustration, Business Information, Emergency Medical Technician, Pharmacy Technician, Pre-Medical, Engineering Drafting, Engineering Electronics, and others.

The Robert Vela TSTEM Early College High School will provide college and career readiness opportunities to foster a community of STEM scholars.

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.

Advisory Board

Dr. Rene Gutierrez, Superintendent of Schools

Ms. Eva Torres, Assistant Superintendent for Curriculum & Instruction

Dr. Shirley Reed, South Texas College President

Dr. Rebecca Morrison, Assistant Superintendent for Finance & Operations

Dr. Anthony Garza, Area Director for Secondary Schools

Ms. Arminda Lozano, Career & Technical Education Director

Ms. Angelica Perez, Advanced Academics and Guidance Services Director

Ms. Carmen Esquivel, College & Career Readiness Supervisor

Ms. Sylvia Ledesma, Robert Vela High School Principal

Dr. Jennifer Mendoza-Culbertson, Academy Director

Doctor's Hospital at Renaissance, STEM Partner

The role of the Superintendent of Schools, Dr. Rene Gutierrez, is to provide guidance in all aspects of the school

programs such as curriculum, personnel, budgeting and ultimately authorizing approval to set initiatives. The

Assistant Superintendent of Curriculum and Instruction, Eva Torres, will counsel, advise and provide guidance in the

areas of Curriculum & Instruction. Her extensive experience and knowledge will be a great asset to the Robert Vela

TSTEM Early College High School program. Dr. Shirley Reed, South Texas College President, has final authority over

the Institute of Higher Education college programs and availability. Angelica Perez, Advanced Academics and Guidance Services Director, will provide support, updates and recommendations on College Boards Advanced Placement instructional program requirements to include compliance with course audits, dual enrollment and professional development focused on STEM. Dr. Anthony Garza, Area Director for Secondary Schools, will provide assistance and support to facilitate the use of instructional facilities from the high school campus. Arminda Lozano, Career & Technical Education Director, will share her expertise in educational programs and provide support through the use of instructional strategies in regards to the CTE instructional programs and facilities. Carmen Esquivel, College & Career Readiness Supervisor, will meet on a monthly basis with the academy staff to provide guidance, pedagogical resources and to ensure the fidelity to the TSTEM blueprint takes place through systematic and strategic audits. Dr. Jennifer Mendoza-Culbertson, Academy Director, will administer personnel and supervise facilities, guide and implement instructional programs and build a positive rapport with the collaborating IHE and the Robert Vela TSTEM Early College High School.

The role of the group is to ensure fidelity of the TSTEM Academy model that is being implemented; to ensure high quality instruction; to provide adequate training and professional development to staff and to ensure the students are enrolled in a coherent course sequence. The group will also periodically review the memorandum of understanding, discuss budget and cost arrangements and address any issues of design. The group will continue to address budgetary issues and concerns staffing of the Robert Vela TSTEM Early College High School and identifying needs, logistics in terms of the anticipated instructional programming extending to the post-secondary education, and demonstrate the creation of a sustainable plan to support for the successful implementation of the academy. The accomplishment that the group is most proud of is obtaining the support from district personnel,

School Board of Trustees and the community at large.

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

Robert Vela TSTEM Early College High Schools goal is to graduate students from high school in four years with an associate degree with a focus on STEM. The academic improvement and preparedness for students who are in need of academic acceleration at Robert Vela TSTEM Early College High School will be addressed through individualized plans and strategic campus planning that includes the following components but not limited to: 4 year academic graduation plans, personal student portfolios to address/reflect on personal growth and goal setting, behavior and intervention plans to address/monitor appropriate conduct,

STEM focused tutorials, summer school enrichment programs focusing on STEM field experiences, and STEM competitions to expose and provide learning opportunities for students. Robert Vela TSTEM Early College High School ensures that students will meet the State of Texas high school graduation requirements as well as the IHEs associates degree plan with a focus on STEM. Robert Vela Early College High School will utilize best instructional practices via project-based learning to provide students with the opportunity to enhance their presentation and communication skills. Activities will include study group presentations/participation, social connection, goal setting, competitive extra curricular activities, clubs, and potential capstone mentorships.

A program requirement for graduation at the Robert Vela TSTEM Early College High School is that all TSTEM ECHS students participate in a STEM related project. TSTEM ECHS students will develop their projects and final presentations will be heard, reviewed, and critiqued by business STEM partners/professionals. Robert Vela TSTEM Early College High School students will be guided in developing their own design, simulate, and be a part of the numerous opportunities that will be made readily available to them for teams/group projects. Robert Vela TSTEM Early College High School students will develop and maintain a portfolio/ running record of their presentations, studies, seminars, research, and mentorships.

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

The TSTEM Early College High School students will have the opportunity for project based learning as well as to do community service. TSTEM Early College High School students will be afforded the opportunity to become members of the National Honors Society that engages in the restoration efforts, recycling, supporting and cleaning historical buildings and areas, and other activities that involve an extensive community effort. TSTEM ECHS students will also participate and lead the annual Career and Technical Education Career Fairs as well as participate in parent and student sessions throughout to promote STEM careers. Robert Vela TSTEM Early College High School students will be provided with the opportunity to be able to participate and be part of ongoing STEM literacy events through on-site presentations.

Robert Vela TSTEM Early College High School will be inviting business and community mentors to share and discuss graduation and career pathways with all TSTEM ECHS students. Robert Vela TSTEM Early College High School administration and staff will recruit mentors to provide their expertise and guidance to enhance the development of the students knowledge and skills.